Panasonic®

Operating Instructions
DVD Home Theater Sound System

Model No. **SC-PT250**

Before connecting, operating or adjusting this product, please read the instructions completely. Please keep this manual for future reference.
Your unit may not look exactly the same as illustrated.

The player plays DVD-Video marked with labels containing the region number or "**ALL**".

Region	Number
Continental Europe, the Middle East, South Africa, Saudi Arabia and Kuwait	2
Southeast Asia and Thailand	3

Example: **For Continental Europe**

2   ALL   2 3 5

USB connection for MP3 players   *page* **33**

DVD VIDEO™   COMPACT **disc** DIGITAL VIDEO   **RAM** COMPATIBLE **PLAYER**

Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

Operations in these instructions are described mainly with the remote control, but you can perform the operations on the main unit if the controls are the same.

Unless otherwise indicated, all illustrations shown are for Continental Europe.

System	SC-PT250
Main unit	SA-PT250
Front speakers	SB-HF250
Center speaker	SB-HC250
Surround speakers	SB-HS250
Subwoofer	SB-HW250

Caution for AC Mains Lead

(For Saudi Arabia and Kuwait)
("GS" area code model only)
For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⬦ or the BSI mark ▽ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

> **CAUTION!**
> IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
> THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.
If in any doubt please consult a qualified electrician.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.
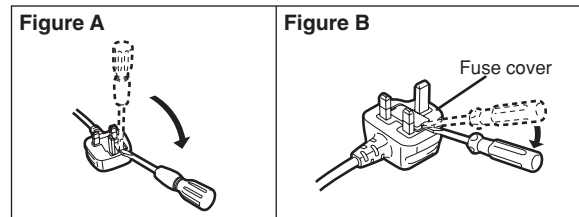
THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use
Remove the connector cover.

How to replace the fuse
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A | Figure B

Fuse cover

2. Replace the fuse and close or attach the fuse cover.

Figure A | Figure B

Fuse (5 ampere)

Fuse (5 ampere)
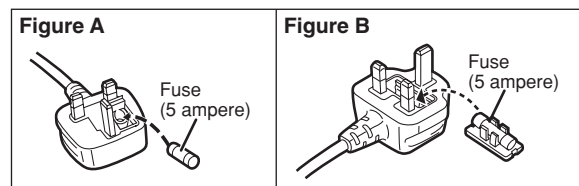
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait
THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

For Continental Europe
THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR
PERFORMANCE OF PROCEDURES OTHER THAN
THOSE SPECIFIED HEREIN MAY RESULT IN
HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR
YOURSELF. REFER SERVICING TO QUALIFIED
PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK
OR PRODUCT DAMAGE,
• DO NOT EXPOSE THIS APPARATUS TO RAIN,
  MOISTURE, DRIPPING OR SPLASHING AND THAT
  NO OBJECTS FILLED WITH LIQUIDS, SUCH AS
  VASES, SHALL BE PLACED ON THE APPARATUS.
• USE ONLY THE RECOMMENDED ACCESSORIES.
• DO NOT REMOVE THE COVER (OR BACK); THERE
  ARE NO USER SERVICEABLE PARTS INSIDE.
  REFER SERVICING TO QUALIFIED SERVICE
  PERSONNEL.

CAUTION!

• DO NOT INSTALL OR PLACE THIS UNIT IN A
  BOOKCASE, BUILT-IN CABINET OR IN ANOTHER
  CONFINED SPACE. ENSURE THE UNIT IS WELL
  VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK
  OR FIRE HAZARD DUE TO OVERHEATING, ENSURE
  THAT CURTAINS AND ANY OTHER MATERIALS DO
  NOT OBSTRUCT THE VENTILATION VENTS.
• DO NOT OBSTRUCT THE UNIT'S VENTILATION
  OPENINGS WITH NEWSPAPERS, TABLECLOTHS,
  CURTAINS, AND SIMILAR ITEMS.
• DO NOT PLACE SOURCES OF NAKED FLAMES,
  SUCH AS LIGHTED CANDLES, ON THE UNIT.
• DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY
  FRIENDLY MANNER.

The socket outlet shall be installed near the equipment
and easily accessible.
The mains plug of the power supply cord shall remain
readily operable.
To completely disconnect this apparatus from the AC
Mains, disconnect the power supply cord plug from AC
receptacle.

This product may receive radio interference caused by
mobile telephones during use. If such interference is
apparent, please increase separation between the product
and the mobile telephone.

SUOMI

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ
KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA
ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1
YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI
LEUDOSSA ILMASTOSSA.

VAROITUS:

VÄHENNÄ TULIPALON, SÄHKÖISKUN TAI
LAITTEISTON VAHINGOITTUMISEN VAARAA
• TÄTÄ LAITETTA EI SAA ALTISTAA SATEELLE,
  KOSTEUDELLE, ROISKEILLE TAI TIPPUVILLE
  NESTEILLE. LAITTEEN PÄÄLLE EI SAA MYÖSKÄÄN
  ASETTAA MITÄÄN NESTEELLÄ TÄYTETTYÄ
  ESINETTÄ, KUTEN MALJAKKOA.
• KÄYTÄ VAIN SUOSITELTUJA LISÄVARUSTEITA.
• ÄLÄ IRROTA KANTTA (TAI TAUSTAA). SISÄLLÄ
  EI OLE KÄYTTÄJÄN HUOLLETTAVISSA OLEVIA
  OSIA. HUOLLON SAA SUORITTAA VAIN
  AMMATTITAITOINEN HENKILÖKUNTA.

VAROITUS!

• ÄLÄ ASENNA TAI LAITA TÄTÄ LAITETTA
  KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI
  MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS
  ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN
  MUU MATERIAALI EI HUONONNA TUULETUSTA,
  JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTA
  JOHTUVA SÄHKÖISKU- TAI TULIPALOVAARA.
• ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA
  SANOMALEHDELLÄ, PÖYTÄLIINALLA, VERHOLLA
  TAI MUULLA VASTAAVALLA ESINEELLÄ.
• ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA
  AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.
• HÄVITÄ PARISTOT LUONTOA
  VAHINGOITTAMATTOMALLA TAVALLA.

Pistorasia tulee asentaa laitteen lähelle helppopääsyiseen
paikkaan.
Verkkojohdon pistokkeen on oltava aina helposti käytettävissä.
Tämä laite voidaan kytkeä kokonaan irti verkkovirrasta
irrottamalla verkkojohdon pistoke pistorasiasta.

Norsk

ADVARSEL!

DETTE PRODUKTET ANVENDER EN LASER.
BETJENING AV KONTROLLER, JUSTERINGER ELLER
ANDRE INNGREP ENN DE SOM ER BESKREVET
I DENNE BRUKSANVISNING, KAN FØRE TIL FARLIG
BESTRÅLING.
DEKSLER MÅ IKKE ÅPNES, OG FORSØK ALDRI
Å REPARERE APPARATET PÅ EGENHÅND. ALT
SERVICE OG REPARASJONSARBEID MÅ UTFØRES
AV KVALIFISERT PERSONELL.

DETTE APPARATET ER BEREGNET TIL BRUK UNDER
MODERATE KLIMAFORHOLD.

ADVARSEL:

FØLG NEDENSTÅENDE INSTRUKSER FOR Å
REDUSERE RISIKOEN FOR BRANN, ELEKTRISK
STØT OG SKADE PÅ PRODUKTET:
• DETTE APPARATET MÅ IKKE UTSETTES FOR
  REGN, FUKTIGHET, DRYPP ELLER SPRUT, OG
  INGEN VÆSKEFYLTE GJENSTANDER, SOM F.EKS.
  VASER, MÅ PLASSERES PÅ APPARATET.
• BRUK KUN ANBEFALT TILBEHØR.
• IKKE FJERN DEKSELET (ELLER BAKSIDEN);
  APPARATET INNEHOLDER INGEN DELER SOM
  KAN SKIFTES ELLER REPARERES AV BRUKEREN.
  OVERLAT TIL KVALIFISERTE SERVICETEKNIKERE
 Å UTFØRE SERVICE.

ADVARSEL!

• APPARATET MÅ IKKE PLASSERES I EN
  BOKHYLLE, ET INNEBYGGET KABINETT
  ELLER ET ANNET LUKKET STED HVOR
  VENTILASJONSFORHOLDENE ER
  UTILSTREKKELIGE. SØRG FOR AT GARDINER
  ELLER LIGNENDE IKKE FORVERRER
  VENTILASJONSFORHOLDENE, SÅ RISIKO FOR
  ELEKTRISK SJOKK ELLER BRANN FORÅRSAKET
  AV OVERHETING UNNGÅS.
• APPARATETS VENTILASJONSÅPNINGER MÅ
  IKKE DEKKES TIL MED AVISER, BORDDUKER,
  GARDINER OG LIGNENDE.
• PLASSER IKKE ÅPEN ILD, SLIK SOM LEVENDE
  LYS, OPPÅ APPARATET.
• BRUKTE BATTERIER MÅ KASSERES UTEN FARE
  FOR MILJØET.

Strømuttaket må befinne seg i nærheten av utstyret og
være lett tilgjengelig.
Støpslet på strømkabelen må være klart til bruk.
Når dette apparatet skal kobles helt fra strømnettet (AC),
må støpslet på strømkabelen trekkes ut av stikkontakten.

CLASS 1 LASER PRODUCT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
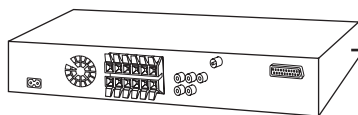
(Side of product)

CAUTION	– LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	– CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 +A2) Class 1M
VARNING	– KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.
FORSIGTIG	– SYNLIG OG USYNLIG LASERSTRÅLING KLASS 1M, NÅR LÅGET ER ÅBENT. UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO!	– AVATTAESSA OLET ALTTIINA LUOKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ. LASERSÄTEILYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	– SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M, WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTION	– RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 1M, EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
注意	– ここを開くと可視及び不可視レーザ光が出ます。 ビームを見たり、触れたりしないでください。
注意	– 打开时有可见及不可见激光辐射。避免光束照射。 GB7241. 1-2001/3B 类 RQLXS0075

Inside of product
Tuotteen sisällä
Produktets innside

CAUTION:
Change the voltage setting to suit the AC voltage in your area. (➡ page 10).
Note that the unit will be seriously damaged or fail to operate correctly if this setting is not made correctly.

-If you see this symbol-

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.
For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.
Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.
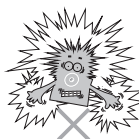
🎵 Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other places where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.

Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service
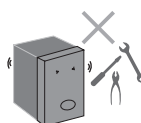
Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

⚙️ Table of contents

ENGLISH

GETTING STARTED

GETTING STARTED

DISC OPERATIONS

OTHER OPERATIONS

REFERENCE

RQTX0055

5

Accessories

Please check and identify the supplied accessories.

☐ **1 Remote control**

For Continental Europe

(N2QAYB000091)

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

(N2QAYB000092)

☐ **2 Remote control batteries**

☐ **1 FM indoor antenna**

☐ **1 AC mains leads**

For Continental Europe, Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

For Saudi Arabia and Kuwait

☐ **2 Cover plates**

☐ **Speaker stands**
  2 Stands (with cable)

☐ **2 Bases**

☐ **8 Screws**

☐ **Speaker cables**
  1 x short cable
  2 x long cables

☐ **1 Video cable**

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

☐ **1 Sheet of speaker cable sticker**
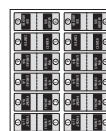
Preparing the remote control

❶ Insert so the poles (+ and −) match those in the remote control.
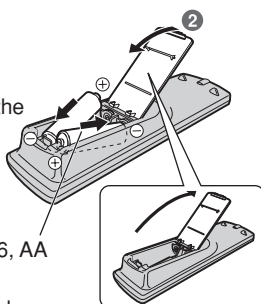
R6/LR6, AA

• Do not use rechargeable type batteries.

Do not:
• mix old and new batteries.
• use different types of batteries at the same time.
• heat or expose batteries to flame.
• take apart or short circuit the batteries.
• attempt to recharge alkaline or manganese batteries.
• use batteries if the covering has been peeled off.

Mishandling of batteries can cause electrolyte leakage which can severely damage the remote control.

Remove the batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

■ **Use**
Aim at the remote control signal sensor (➡ page 14), avoiding obstacles, at a maximum range of 7 m directly in front of the unit.

⚙ Placement of speakers

Setup example
Place the front, center, and surround speakers at approximately the same distance from the seating position. The angles in the diagram are approximate.

1 FRONT (L, R)   **2** SURROUND (L, R)   **3** CENTER   **4** SUBWOOFER

Main unit

60°   120°
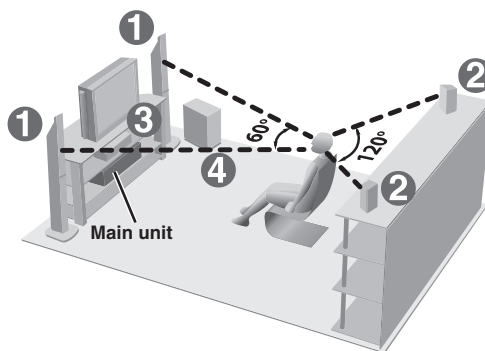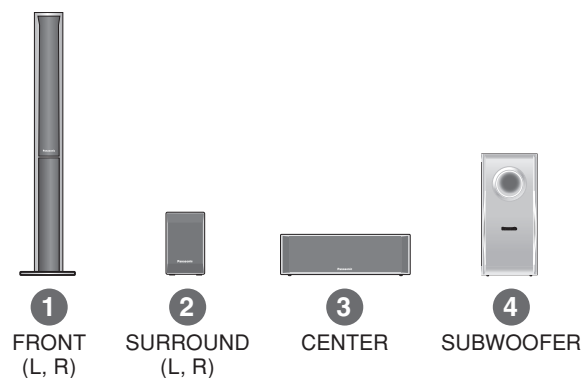
- **Use only supplied speakers**
  Using other speakers can damage the unit, and sound quality will be negatively affected.
- Place speakers on flat secure bases. Take proper precautions to prevent the speakers from falling if you cannot set them up on an even surface.
- Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtains.

Main unit
- Keep your speakers at least 10 mm away from the system for proper ventilation.
- To allow for proper ventilation and to maintain good airflow around the main unit, position it with at least 5 cm of space on all sides.
- Do not block the ventilation holes of the main unit.

CAUTION!
- Do not stand on the base. Be cautious when children are near.
- Refrain from holding the speaker's net.

Center speaker
- Vibration caused by the center speaker can disrupt the picture if it is placed directly on the television. Put the center speaker on a rack or shelf.
- To prevent the speakers from falling, do not place directly on top of the television.

Subwoofer
- Place to the right or left of the television, on the floor or a sturdy shelf so that it will not cause vibration. Leave a space of 30 cm from the television.

Note
- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage:
  – When playing distorted sound.
  – When the speakers are reverberating due to a record player, a microphone (except **For Continental Europe**), noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
  – When adjusting the sound quality.
  – When turning the unit on or off.

If irregular coloring occurs on your television
The front and center speakers are designed to be used close to a television, but the picture may be affected with some televisions and setup combinations.

If this occurs, turn the television off for about 30 minutes.
The television's demagnetizing function should correct the problem. If it persists, move the speakers further away from the television.

Caution
- **The main unit and supplied speakers are to be used only as indicated in this setup. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.**
- **Do not attempt to attach these speakers to walls using methods other than those described in this manual.**

🔊 Speaker assembly

Preparation
- To prevent damage or scratches, lay down a soft cloth and perform assembly on it.
- For assembly, use a Phillips-head screwdriver.
- Make sure you have all the indicated components before starting assembly, setup, and connection.
- There is no difference between the right and left speakers and stands.
- For optional wall mount, refer to page 9.

2 Front speakers (with cover plate) **2 Stands (with cable)** **2 Bases** **8 Screws**

1 Attach the stand to the base.

① **Thread the speaker cable through the base.**
For quicker threading, loosely fold the cable in half (do not crease), pass the folded portion through the hole, and then pull the rest of the cable through the base.
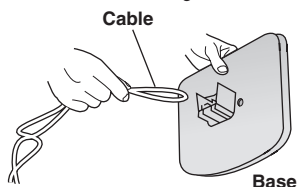
Cable

Base

② **Attach the stand to the base while gently pulling on the end of the speaker cable.**

Stand

Base
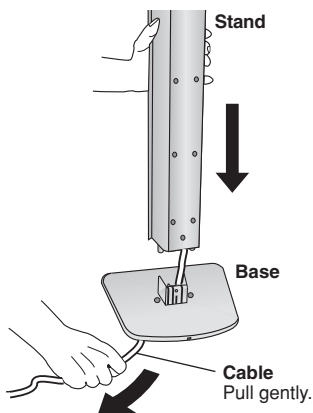
Cable
Pull gently.

2 Secure the stand to the base.

Screw
Tighten securely.

Stand

Base

Screw
Tighten securely.

Slide the speaker cable into the groove.
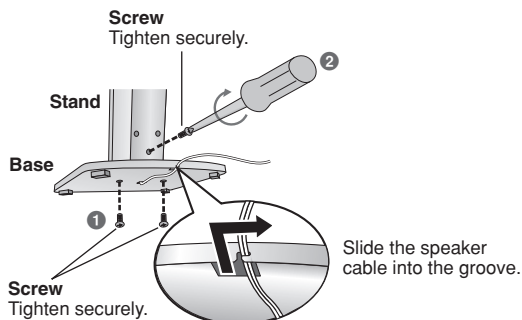
3 Attach the speaker to the stand.

Pull out the end of the speaker cable and position it between the ridges. Attach the speaker to the stand.

Speaker

❶ **Cover plate**
Remove before attaching the speaker and keep for wall-mount use (➡ page 9).

Ridges
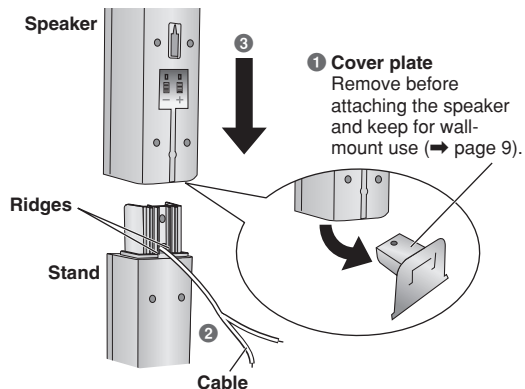
Stand

Cable

4 Secure the speaker to the stand.

Speaker

Stand

Screw
Tighten securely. Ensure the speaker cable is centered in the groove.

5 Connect the speaker cable.

Insert the wire fully.

+: White
−: Blue

Push!
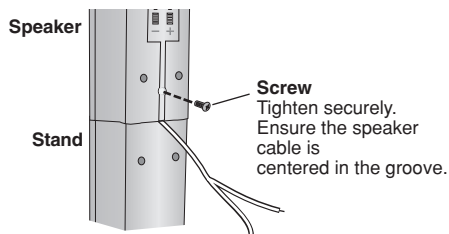
Press the speaker cable into the groove.
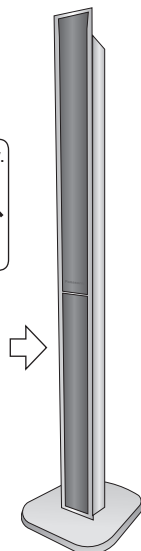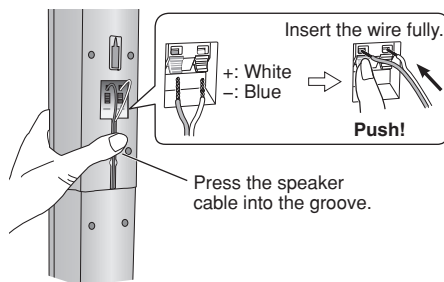
■ **Preventing the speakers from falling**
  • You will need to obtain the appropriate screw eyes to match the walls or pillars to which they are going to be fastened.
  • Consult a qualified housing contractor concerning the appropriate procedure when attaching to a concrete wall or a surface that may not have strong enough support. Improper attachment may result in damage to the wall or speakers.

String (not included)
Thread from the wall to the speaker and tie tightly.

Approx. 150 mm

Rear of the speaker   **Screw eye** (not included)   **Wall**
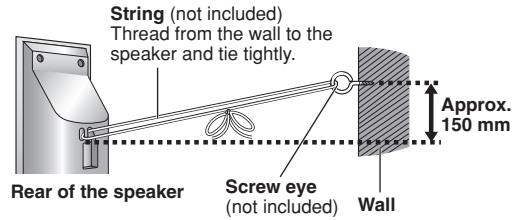
Speaker installation options

■ **Attaching to a wall**
  You can attach all of the speakers (except subwoofer) to a wall.
  • The wall or pillar on which the speakers are to be attached should be capable of supporting 10 kg per screw. Consult a qualified building contractor when attaching the speakers to a wall. Improper attachment may result in damage to the wall and speakers.
  • When mounting the front speakers to a wall, we recommend using a string (not included) to prevent it from falling.

2 Screws   **2 Cover plates**

Preparation for front speakers
1 Remove the speaker cable from the stand.

❶ Release the cable from the groove.

❷

2 Connect the cable (➡ page 8).
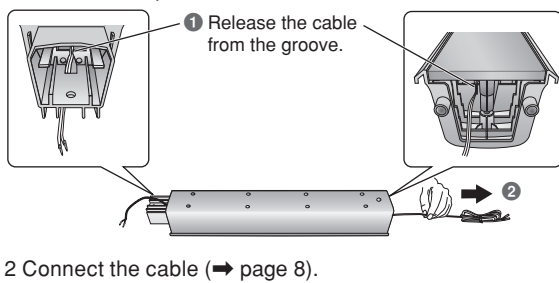
① **Attach the cover plate to the front speaker**

❷ ┌ **Screw** Tighten securely.

❶ **Cover plate**
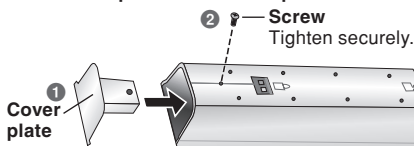
② **Drive a screw (not included) into the wall.**

Ø4.0 mm ─ ┤ ├ ─ Ø7.5 to 9.5 mm
Wall or pillar ─ 4.0 to 6.0 mm
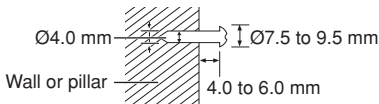
③ **Fit the speaker securely onto the screw(s) with the hole(s).**

Front speaker   **Center speaker**

106 mm

340 mm   200 mm

Surround speaker
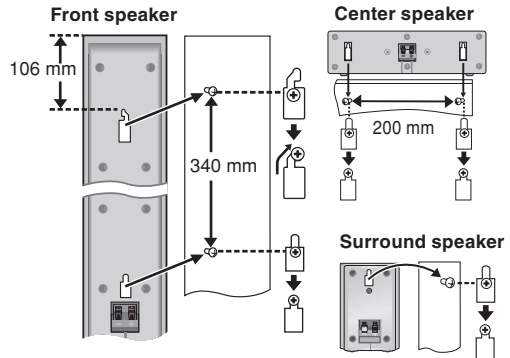
Example:
In this position, the speaker will likely fall if moved to the left or right.

Move the speaker so that the screw is in this position.

Reattaching the speaker cable to the stand
1 Remove the eight screws from the stand, and remove the speaker net.

Screw

2 Position the cable.

Approx. 15 cm
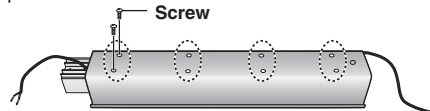
Press the speaker cable into the groove.

Cable
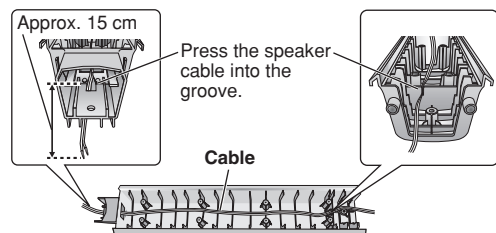
3 Attach the speaker net with the screws.

■ **Fitting speaker stands (not included)**
  (For center and surround speakers)

  Ensure the stands meet these conditions before purchasing them.
  Note the diameter and length of the screws and the distance between screws as shown in the diagram.
  • The stands must be able to support over 10 kg.
  • The stands must be stable even if the speakers are in a high position.

Example: **Center speaker**

Metal screw holes
For attaching to speaker stands

5 mm, pitch 0.8 mm
Plate thickness plus 7 mm to 10 mm
60 mm

Speaker stand (not included)

🎵 Simple setup
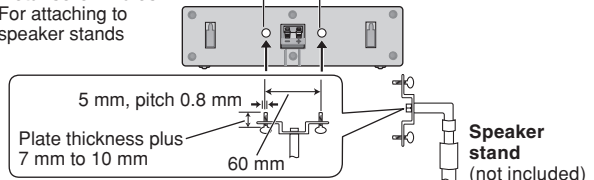
Making the connections

Connect the AC mains lead only after all other connections have been made.
• Ensure that you have the complete accessories before making the connections.

Conserving power
The main unit consumes a small amount of power, even when it is in standby mode (approx. 0.8 W). To save power when the unit is not to be used for a long time, unplug it from the household mains socket. You will need to reset some memory items after plugging in the unit.

Before connecting the AC mains lead, set the voltage.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

110-127V 220-240V
VOLT ADJ
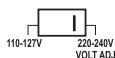
Change the voltage selector to the appropriate position for the area in which this system is used.

Connect to the power supply.

For Saudi Arabia and Kuwait

BE SURE TO READ THE NOTE ON AC MAINS LEAD ON PAGE 2 BEFORE CONNECTION.

Note

The included AC mains lead is for use with this unit only. Do not use it with other equipment.

Connect to the antenna.

■ **FM indoor antenna**
Tape the antenna where reception is the best.

Adhesive tape

FM
ANT (75Ω)

SPEAKERS
COMPONENT VIDEO OUT   FM ANT (75Ω)
PB   Y
PR
AUX
AC IN ~
SUBWOOFER CENTER FRONT SURROUND
AV

→ To household mains socket
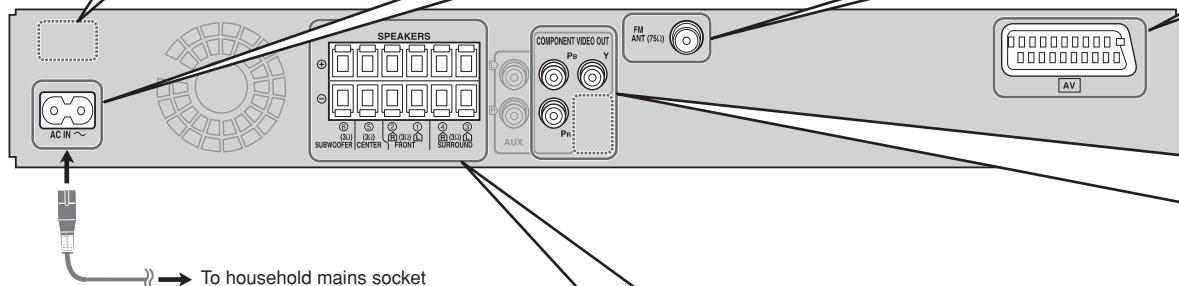
Connect to the speakers.

Attach the speaker-cable stickers to make connection easier.
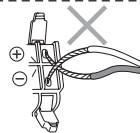
Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.

Speaker-cable sticker
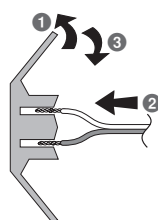
Do not insert the wires beyond the wire insulation.

Insert the wire fully.

Push!

⑤ CENTER

CENTER ⑤

② FRONT (R)
① FRONT (L)
④ SURROUND (R)
③ SURROUND (L)

+: White
−: Blue

⑥ SUBWOOFER
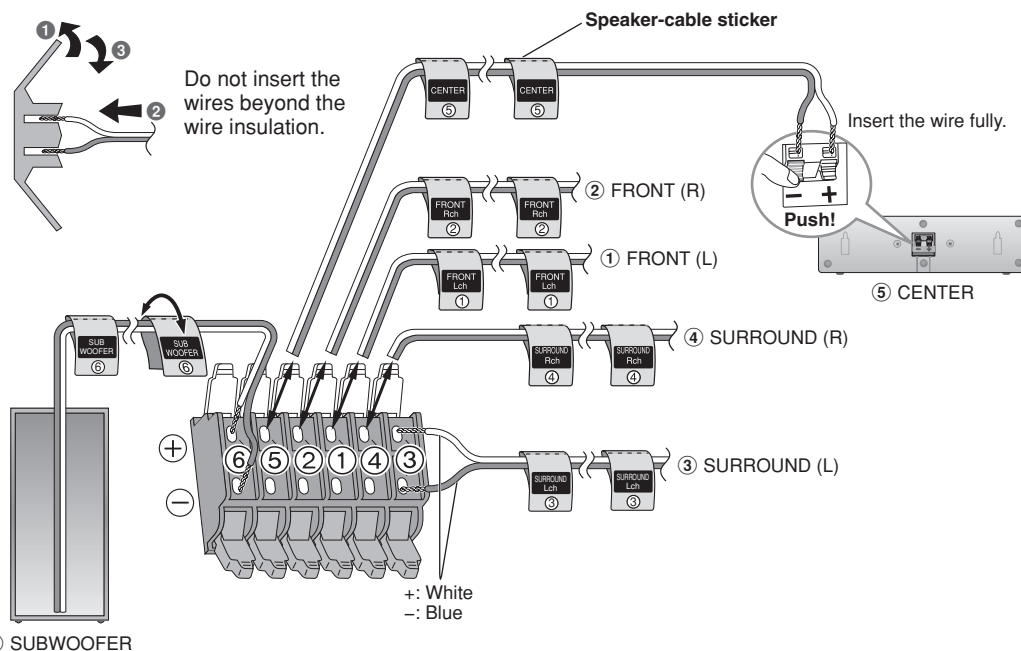
Connect to the various television terminals.

- **Do not connect the unit through a video cassette recorder.**
- Due to copy guard protection, the picture may not be displayed correctly.
- Turn the television off before connecting, and refer to the television's operating instructions.

For Continental Europe

■ Television with SCART terminal

AV

Television
(not included)

SCART cable
(not included)

AV
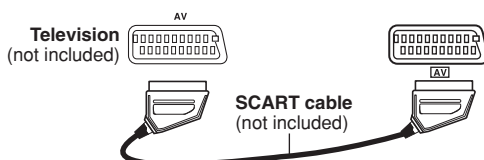
Using the SCART (AV) terminal
To improve picture quality, you can change the video signal output from the SCART (AV) terminal from "VIDEO" to either "S-VIDEO" or "RGB" to suit the type of television you are using. Select "S-VIDEO/YPbPr" or "RGB/NO OUTPUT" from QUICK SETUP (➡ page 12).
This connection will also enable you to play audio from your television through your home theater system. Refer to "Operating other equipment" (➡ page 32).

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

■ Television with a VIDEO IN terminal

Video cable
(included)

VIDEO IN

Television
(not included)

COMPONENT VIDEO OUT
PB   Y
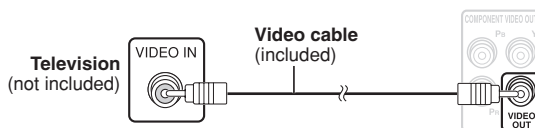
VIDEO
OUT

■ Television with COMPONENT VIDEO IN terminals

Video cables
(not included)

COMPONENT
VIDEO IN

Television
(not included)

Y

PB

PR

COMPONENT VIDEO OUT
PB   Y

PR
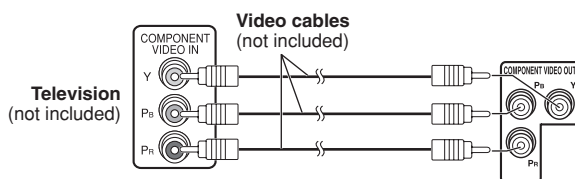
Using the COMPONENT VIDEO OUT terminals
These terminals can be used for either interlaced or progressive output. Connection using these terminals outputs the color difference signals (P_B/P_R) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colors.
- The description of the component video input terminals depends on the television or monitor (example: $Y/P_B/P_R$, Y/B-Y/R-Y, $Y/C_B/C_R$).
- Connect to terminals of the same color.

To enjoy progressive video
- Connect to a progressive output compatible television.
- Set the "VIDEO OUT (I/P)" to "PROGRESSIVE" (➡ page 24, "VIDEO" tab).
- All Panasonic televisions that have "PROGRESSIVE" input connectors are compatible. Consult the manufacturer if you have another brand of television.

For Continental Europe

- Panasonic televisions with "PROGRESSIVE" input terminals are progressive compatible. Consult the manufacturer if you have another brand of television.

🎛 Performing QUICK SETUP

The QUICK SETUP screen assists you to make necessary settings.

To display the picture from this main unit, switch on the television and change the television's input mode which is connected to this main unit (example : VIDEO 1, AV 1, etc.).

To change your television's input mode, refer to its operating instructions.
• This remote control is able to perform some basic television operations (➡ page 34).

2 Select "DVD/CD".

1 Switch on the main unit.
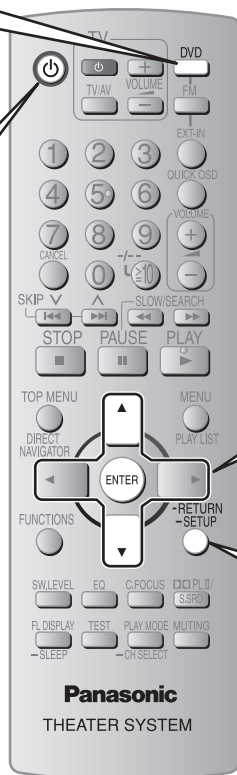
3 Shows the QUICK SETUP screen

(Press and hold)

4 Follow the messages and make the setting.
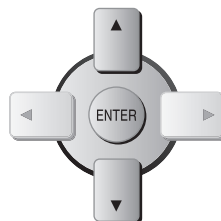
5 Finish the QUICK SETUP.

6 Press to exit.

Panasonic
THEATER SYSTEM

To change these settings later
Select "QUICK SETUP" in "OTHERS" tab (➡ page 25).

■ Details of settings

Menu language Choose the language for the on-screen messages.	• ENGLISH	• (Language options)※1	
TV Type Select to suit the type of television.	• STANDARD • PROJECTION	• CRT • PLASMA	• LCD
TV's Aspect Ratio Choose the setting to suit your television and preference.	• 4:3 PAN&SCAN • 16:9 NORMAL	• 4:3 LETTERBOX • 16:9 SHRINK	• 4:3 ZOOM • 16:9 ZOOM
VIDEO OUT – SCART※2 Choose the video signal format to be output from the SCART (AV) and Component terminal.	• VIDEO/YPbPr	• S–VIDEO/YPbPr	• RGB/NO OUTPUT

※1 Language options :

  For Continental Europe, the Middle East, South Africa, Saudi Arabia and Kuwait :
  FRANÇAIS, ESPAÑOL, DEUTSCH, РУССКИЙ, MAGYAR, ČESKY, POLSKI

  For Southeast Asia and Thailand : 繁體中文

※2 **For Continental Europe**

• Underlined items in the above table are the factory preset.

🎵 Disc information

Discs that can be played

■ Commercial discs

Disc	Logo	Indicated in these instructions by	Remarks
DVD-Video	DVD VIDEO / DVD VIDEO	DVD-V	High quality movie and music discs.
Video CD	COMPACT disc DIGITAL VIDEO / COMPACT disc SUPER VIDEO	VCD	Music discs with video. Including SVCD (Conforming to IEC62107).
CD	COMPACT disc DIGITAL AUDIO	CD	Music discs.

■ Recorded discs (○: Playable, ✕: Not playable)

Disc	Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.					Finalizing※6
		DVD-VR※2	DVD-V※4	WMA	MP3	JPEG	MPEG4	DivX※9	
DVD-RAM	DVD RAM RAM4.7	○	—	✕	○	○	○※8	○	Not necessary
DVD-R/RW	DVD R R4.7 / DVD RW	○	○	✕	○	○	○	○	Necessary
DVD-R DL	DVD R R DL	○※3	○	✕	✕	✕	✕	✕	Necessary
+R/+RW	—	✕	(○)※5	✕	✕	✕	✕	✕	Necessary
+R DL	—	✕	(○)※5	✕	✕	✕	✕	✕	Necessary
CD-R/RW※1	—	—	—	○	○	○	○	○	Necessary※7

• It may not be possible to play all the above-mentioned discs in some cases due to the type of disc, the condition of the recording, the recording method, or how the files were created (➡ page 26, Tips for making data discs).

※1 This unit can play CD-R/RW recorded with CD-DA or Video CD format.
※2 Discs recorded on DVD video recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).
※3 Discs recorded on DVD video recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).
※4 Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.
※5 Recorded using a format different from DVD-Video Format, therefore, some functions cannot be used.
※6 A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary" on this unit, the disc must first be finalized on the device it was recorded on.
※7 Closing the session will also work.
※8 MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system].
※9 Functions added with DivX ultra are not supported.

Note about using a DualDisc
The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

■ Discs that cannot be played
DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

■ Video systems
• This unit can play PAL and NTSC, but your television must match the system used on the disc.
• PAL discs cannot be correctly viewed on an NTSC television.
• This unit can convert NTSC signals to PAL 60 for viewing on a PAL television (➡ page 24, "NTSC DISC OUT" in "VIDEO" tab).

Main unit

ENGLISH

GETTING STARTED

►/MEMORY
Disc playback **(16)**,
Memorise the receiving
radio stations **(28)**

Standby/on switch [⏻/I] (16)
Press to switch the unit from on to
standby mode or vice versa. In standby
mode, the unit is still consuming a small
amount of power.

■/- TUNE MODE/– FM MODE
Stop playback, Select the tuning mode **(28)**,
Adjust the FM reception condition **(28)**

MUSIC PORT jack
Connect an external device **(33)**

⏏ OPEN/CLOSE
Open or close the
disc tray **(16)**

I◄◄/◄◄, ►►/►►I/∨ TUNE ∧
Skipping or slow-search play,
Select the radio stations **(28)**

●⟿ USB port
Connect a USB device **(33)**

Display

+, – VOLUME
Turn the volume
up or down **(16)**

Remote control signal sensor

AC supply indicator [AC IN]
This indicator lights when the unit
is connected to the AC mains
supply.

For Southeast Asia, Thailand, the Middle
East, South Africa, Saudi Arabia and Kuwait

MIC VOL

1   MIC   2

MIN   MAX

MIC jack
Connect a microphone **(30)**
MIC VOL
Adjust the microphone volume **(30)**

SELECTOR (16, 28)

For Continental Europe

→DVD/CD → USB → FM → AV^{※2}⌐
└──────── MUSIC. P. ← AUX ←────┘

For Southeast Asia, Thailand, the Middle East,
South Africa, Saudi Arabia and Kuwait

→DVD/CD → USB → FM → AUX → MUSIC P. ⌐

Headphones
(not included)

Headphone plug type:
Ø3.5 mm stereo mini plug
• Reduce the volume before
  connecting.
• Audio is automatically
  switched to 2-channel stereo.
• To prevent hearing damage,
  avoid listening for prolonged
  periods of time.

OPEN/CLOSE Panasonic SELECTOR I◄◄◄ ►►►I -TUNE MODE/-FM MODE ►○

MUSIC PORT ⏻/I AC IN ●⟿ ∨ TUNE ∧ VOLUME MEMORY – + ⌒

Remote control

Television operations **(34)**

Switch the main unit on or off **(16)**

Change the television's video input mode **(34)**

Select disc's title numbers and etc.,
Enter numbers **(17)**

Select preset radio stations **(28)**

Show a disc top menu **(17)**
or program list **(17)**

※1 −FUNCTIONS
−KARAOKE

Show on-screen menu **(20)**,
※1Karaoke **(30)**

Show the display on the main unit **(17)**,
Set the sleep timer
This function enables you to turn off the unit
automatically after the set time.
SLEEP 30 → SLEEP 60 → SLEEP 90
└── OFF ← SLEEP 120 ←──┘
To cancel the timer
Press and hold [−SLEEP] to select "OFF".
To confirm the remaining time
Press and hold [−SLEEP] again.

Adjust the television volume **(34)**

Select the source
DVD: DVD/CD **(12)**
FM (28)
For Continental Europe
EXT-IN: USB **(33)**, AV※2 **(34)**, AUX **(32)**,
MUSIC P. **(33)**

For Southeast Asia, Thailand, the Middle
East, South Africa, Saudi Arabia and Kuwait
EXT-IN: USB **(33)**, AUX **(32)**, MUSIC P. **(33)**

Show the current disc's playback condition
(18)

Adjust the volume of the main unit **(30)**

Basic operations for play **(17)**

Show a disc menu or play list **(17)**

Select or confirm menu items on the
television screen **(12)**, Frame-by-frame **(17)**

Return to previous screen **(17)**,
Show the Setup menu **(12)**

SW.LEVEL	EQ	C.FOCUS	⊡⊡ PL II/ S.SRD
(29)	**(29)**	**(29)**	**(29)**
※1 −SW.LEVEL −ECHO		TEST	PLAY MODE −CH SELECT
(29, 31)		**(30)**	**(18, 30)**

Panasonic
THEATER SYSTEM

To mute the sound
To cancel
• Press [MUTING] again or adjust the
volume.
• Muting is cancelled when you switch the
unit to standby.

TV — DVD / FM / EXT-IN / QUICK OSD / VOLUME
CANCEL / −/-- / SKIP / SLOW/SEARCH / STOP PAUSE PLAY
TOP MENU / MENU / DIRECT NAVIGATOR / PLAY LIST / ENTER / RETURN −SETUP / FUNCTIONS
SW.LEVEL EQ C.FOCUS ⊡⊡ PL II/ S.SRD / FL DISPLAY −SLEEP / TEST / PLAY MODE −CH SELECT / MUTING

※1 **For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait**

※2 "AV" works only when the scart cable is connected (➡ page 32).

🎼 Disc — Basic play

Using the main unit

1 Power on.

2 Select "DVD/CD".

SELECTOR

3 Load a disc in the tray.

OPEN/CLOSE
▲

- Load double-sided discs so the label for the side you want to play is facing up.
- For DVD-RAM, remove the disc from its cartridge before use.

4 Adjust the volume and start playback.

VOLUME

Using the remote control

Numeric buttons

CANCEL

|◄◄, ►►|, ∨, ∧, SKIP

■, STOP

II, PAUSE

TOP MENU, DIRECT NAVIGATOR

FL DISPLAY

DVD

◄◄, ►►, SLOW/SEARCH

►, PLAY

MENU, PLAY LIST

▲, ▼, ◄, ►, ENTER

-RETURN

Stop

STOP ■	The position is memorised while "RESUME" is on the display. • Press [►, PLAY] to resume. • Press [■, STOP] again to clear the position.

Pause

PAUSE ❚❚	• Press [►, PLAY] to resume playback.

Search (during play)

SLOW/SEARCH ◄◄ ►►	• Play speed increases up to 5 steps. • Press [►, PLAY] to resume normal playback.

Slow-motion play (during pause)

SLOW/SEARCH ◄◄ ►►	• Play speed increases up to 5 steps. • **VCD** Slow motion play is for forward direction only. • Except **MPEG4** **DivX**. • Press [►, PLAY] to resume normal playback.

Main unit display

FL DISPLAY −SLEEP	**DVD-V** **DVD-VR** **WMA** **MP3** **MPEG4** **DivX** Time display ↔ Information display **JPEG** SLIDE ↔ Information display

Skip

SKIP ∨ ∧ ⏮ ⏭	———

On-screen item select

Select — Confirm

Select

ENTER

———

Enter numbers

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⓪ -/--≧10
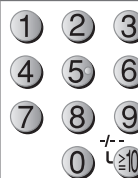
DVD-V (while stopped) **DVD-VR** **VCD** **CD**
Example: To select 12,
-/--≧10 ⇨ ①, ②

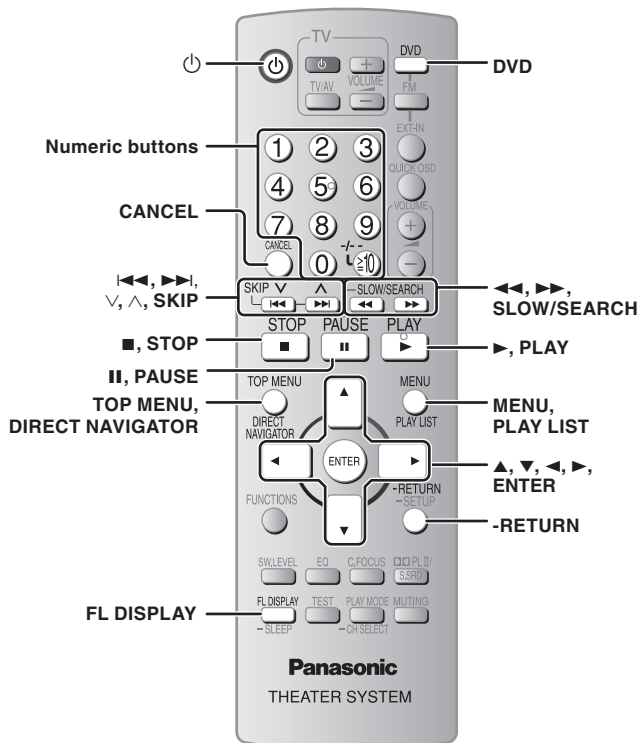**VCD** with Playback control (PBC)
Press [■, STOP] and then press the numeric buttons to cancel the PBC functions.

Note

• The numeric buttons that can function depend on the number of tracks on the VCD.

Cancel the numbers

CANCEL	———

Disc menus

TOP MENU	**DVD-V** Shows a disc top menu.
DIRECT NAVIGATOR	**DVD-VR** Shows the program (➡ page 19).
MENU PLAY LIST	**DVD-V** Shows a disc menu. **DVD-VR** Shows the playlist (➡ page 19).
-RETURN −SETUP	**VCD** with Playback control (PBC) Shows a disc menu.

Frame-by-frame (during pause)

ENTER
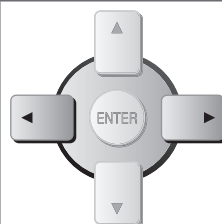
DVD-V **DVD-VR** **VCD**
• **DVD-VR** **VCD** Forward direction only.

Return to previous screen

-RETURN −SETUP	———

Note

• **DISC CONTINUES TO ROTATE WHILE MENUS ARE DISPLAYED.**
  Press [■, STOP] when you finish to preserve the unit's motor and your television screen.
• Total title number may not be displayed properly on +R/+RW.
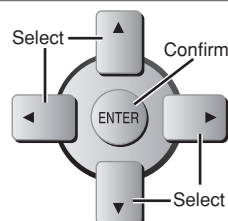
Displaying current playback condition

QUICK OSD

◯ (during play)

⬇

Example: **DVD-V**

① ② ③ ④

```
T 1  C 2  TIME ( 0:13:03 ) ---
▶ ▬▬▬▬▬▬▬▬▬▬▬▬▬▬
```

↑ ↑
⑤ ⑥

③

```
T 1  C 2  TIME ( -2:30:21 ) ---
▶ ▬▬▬▬▬
```

The OSD's (on-screen display) abbreviations are as described below;
① Current playback item
   example: T = Title (**DVD-V**) or Track (**CD** **VCD**)
   C = Content (**WMA** **MP3** **MPEG4** **DivX**)
   PG = Program or PL = Playlist (**DVD-VR**)
② Current playback chapter
   example: C= Chapter (**DVD-V**)
③ Elapsed or remaining play time
   (Press [▲, ▼] to view the elapsed or remaining play time.)
④ Play mode condition
⑤ Playback condition
⑥ Current playback position

Note

WMA **MP3**
Remaining play time cannot be viewed.

Program and Random play

DVD-V **VCD** **CD** **WMA** **MP3** **JPEG** **MPEG4** **DivX**

PLAY MODE
▭ (during stop)
− CH SELECT

⬇

Example: **DVD-V** ┌→Program → Random ─┐
                    └─ Off (Normal play)←─┘

To exit program or random play mode while stopped.

PLAY MODE
▭ (several times)
− CH SELECT

• **DVD-V** Some items cannot be played even if you have programmed them.
• Program and random play functions only within the selected "AUDIO", "PICTURE" and "VIDEO" folder.

Program play (up to 30 items)

1 To select the items.

[▲] , [▼] ⇨ ENTER

• Press [-RETURN] to select from the previous folders.
• Repeat this step to program other items.

Example: **DVD-V**

```
DVD-V PROGRAM
SELECT TITLE    TITLE CHAP.
  TITLE 1       1
  TITLE 2       2
  TITLE 3       3
  TITLE 4       4
  TITLE 5       5
  TITLE 6       6
  TITLE 7       7
                8
                9
               10
START:PLAY            CLEAR ALL
```

⬇

```
DVD-V PROGRAM
SELECT CHAPTER   TITLE CHAP.
  ALL          1  2  1
  CHAP.  1     2  2  2
  CHAP.  2     3  3  6
  CHAP.  3     4  3  3
  CHAP.  4     5  5  1
  CHAP.  5     6  5  5
  CHAP.  6     7  5  7
  CHAP.  7     8  5  8
  CHAP.  8     9  2  1
  CHAP.  9    10  2  4
START:PLAY            CLEAR ALL
```

2 PLAY ▶

To select all the items
Press [▲, ▼] to select "ALL".
Then press [ENTER] again to confirm.

To clear the selected program
1. Press [►, ▲, ▼] to select the program number.
2. Press [CANCEL].

To clear the whole program
Select "CLEAR ALL" with [►] and press [ENTER].
The whole program is also cleared when the unit is turned off, the disc tray is opened or another source is selected.

Random play

1 To select a title.

[▲] , [▼] ⇨ ENTER

Example: **DVD-V**

```
DVD-V RANDOM
SELECT TITLE

  TITLE 1
  TITLE 2
  TITLE 3
  TITLE 4
  TITLE 5
  TITLE 6
  TITLE 7

PRESS PLAY TO START
```

⬇

```
DVD-V RANDOM
SELECT TITLE

* TITLE 1
  TITLE 2
  TITLE 3
  TITLE 4
  TITLE 5
  TITLE 6
  TITLE 7

PRESS PLAY TO START
```

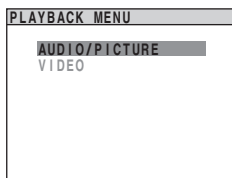• Press [ENTER] again to cancel the selection.

2 PLAY ▶

⚙️ Playing data discs using navigation menus

Playing data discs

Select "DATA" in "OTHERS" tab (➡ page 25) to play WMA, MP3, JPEG, MPEG4 or DivX content.
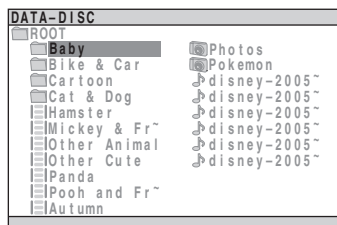WMA MP3 JPEG MPEG4 DivX

Playing items in order (PLAYBACK MENU)

```
PLAYBACK MENU

AUDIO/PICTURE
VIDEO
```

To select "AUDIO/PICTURE" or "VIDEO".

▲ , ▼ ⇨ ENTER

Playing from the selected item

1 MENU / PLAY LIST

⬇

```
DATA-DISC
ROOT
  Baby          Photos
  Bike & Car    Pokemon
  Cartoon       disney-2005~
  Cat & Dog     disney-2005~
  Hamster       disney-2005~
  Mickey & Fr~  disney-2005~
  Other Animal  disney-2005~
  Other Cute    disney-2005~
  Panda
  Pooh and Fr~
  Autumn
```

📁 : Group (Folder)※

📷 : JPEG

🎵 : WMA/MP3 content (File)※

📺 : MPEG4 and DivX video content (File)※

※ Files are treated as contents and folders are treated as groups in these instructions.
Maximum file or folder name: approximate 12 characters

2 **To select the group.**

▲ , ▼ ⇨ ENTER

3 **To start play from the selected content.**

▲ , ▼ ⇨ ENTER

To exit the screen
Press [MENU].

Playing RAM and DVD-R/-RW (DVD-VR) discs

DVD-VR
• Titles appear only if the titles are recorded on the disc.
• You cannot edit programs, play lists and disc titles.

Playing the programs

1 TOP MENU (during stop) / DIRECT NAVIGATOR

```
PG   DATE   LENGTH      TITLE

1   02/12  0:00:00   01234567890123
    19:33            45678901234...

2   07/02  0:00:06   ABCDEFGHIJKLMN
    16:47            OPQRSTUVWXY...      ▸

3   02/12  0:00:00
    19:34

4   02/12  0:00:00
    19:34
                  ▾
```

2 **To select from the program.**

▲ , ▼

3 ENTER

To exit the screen
Press [DIRECT NAVIGATOR].

Playing a play list

Applicable only when the disc contains a play list.

1 MENU (during stop) / PLAY LIST

```
PL   DATE   LENGTH      TITLE

1   09/06  0:00:06   PL#01
    08:50

2   09/06  0:02:00   PL#02
    08:50                            ▸

3   09/06  0:00:21
    08:54

4   09/06  0:00:10
    08:54
                  ▾
```

2 **To select from the play list.**

▲ , ▼

3 ENTER

To exit the screen
Press [PLAY LIST].

ENGLISH

DISC OPERATIONS

🎛 Using on-screen menus

2 **Select the item.**

Select — ▲

Confirm

FUNCTIONS

◀ ENTER ▶

▼ — Select

3 **Make the settings.**

Select — ▲

◀ ENTER ▶

▼

Confirm

1 **Display the functions screen.**

FUNCTIONS

4 **Press to exit.**

-RETURN
—SETUP

Panasonic
THEATER SYSTEM
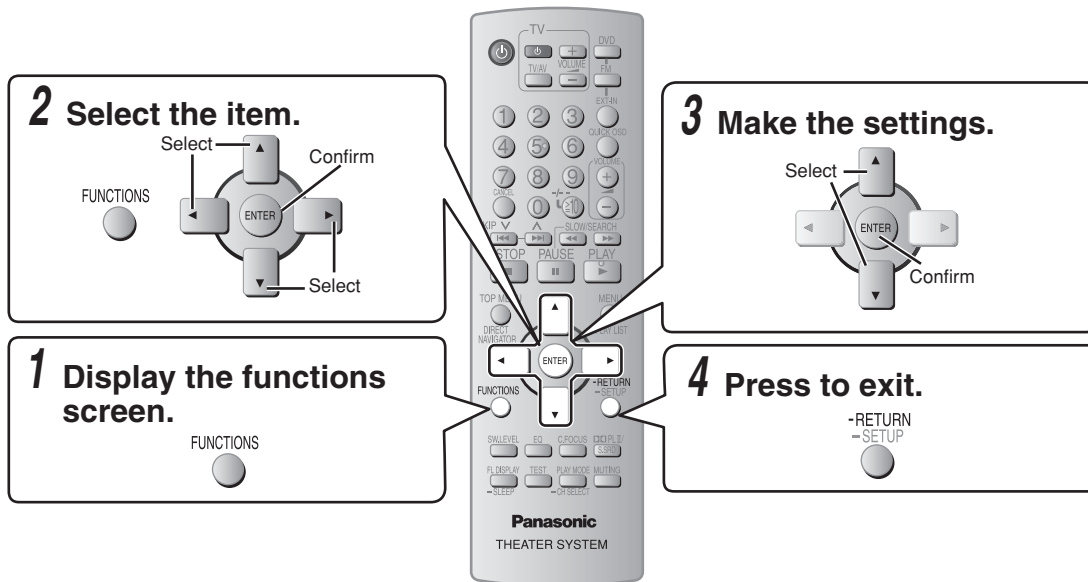
Items shown differ depending on the type of disc as well as the recording format.

Functions menu

TRACK SEARCH **TITLE SEARCH** **CONTENT SEARCH** **CHAPTER SEARCH** **PG (Program) SEARCH** **PL (Playlist) SEARCH**	**To start from a specific item** Example: DVD-V T2 C1　♪1: ENG　3/2.1ch 　.ılıx1.0 ↻OFF　　　OFF　　　🔢1 TITLE SEARCH
AUDIO	Example: DVD-V T2 C1　♪1: ENG　3/2.1ch 　.ılıx1.0 ↻OFF　　　OFF　　　🔢1 AUDIO DVD-V DivX (with multiple soundtracks) **To select audio soundtrack** DVD-VR VCD **To select "L", "R" , "L+R" or "L R"** DVD-V (Karaoke disc) (➡ page 30, Enjoying Karaoke) **To select "ON" or "OFF" for vocals** **To select "OFF", "V2", "V1" or "V1+V2" for different vocal selections** • Read the disc's instructions for details. **Signal type/data** LPCM/PPCM/⫿⫿Digital/DTS/MP3/MPEG: Signal type kHz (Sampling frequency)/bit/ch (Number of channels) Example: 3 /2 .1ch 　　　　　.1: Low frequency effect (not displayed if there is no signal) 　　　　0: No surround 　　　　1: Mono surround 　　　　2: Stereo surround (left/right) 　　1: Center 　　2: Front left + Front right 　　3: Front left + Front right + Center • DivX It may take some time for play to start if you change the audio on a DivX video disc.
DATE DISPLAY	JPEG : OFF ↔ ON C8　　●OFF　　　　　↻0 ↻OFF DATE DISPLAY

Functions menu (continued)

PLAY SPEED	**To change play speed** – from "x0.6" to "x1.4" (in 0.1-unit steps) Example: DVD-V ``` T2 C2 ♪1:*** 2/0ch ⣿ ▶,x1.0 ⟳OFF 🎬 1:ENG 📐1 PLAY SPEED ``` DVD-V DVD-VR • Press [▶, PLAY] to resume normal playback. • After you change the speed. – Dolby Pro Logic II has no effect. – Audio output switches to 2-channel stereo. – Sampling frequency of 96 kHz is converted to 48 kHz. • This function may not work depending on the disc's recording.
ROTATION	**To rotate a picture** (during pause) JPEG : 0 → 90 → 180 → 270 ``` C8 ⊛OFF ⟲0 ⟳OFF ROTATION ```
REPEAT MODE	Example: DVD-V ``` T2 C2 ♪1:*** 2/0ch ⣿ ▶,x1.0 ⟳OFF 🎬 1:ENG 📐1 REPEAT MODE ``` (Only when the elapsed play time can be displayed.) DVD-V : OFF → TITLE → CHAP. (Chapter) → A–B DVD-VR : OFF → ALL → PG (Program) or PL (Playlist) → A–B VCD CD : OFF → ALL → TRACK → A–B WMA MP3 : OFF → ALL → GROUP[※1] → CONTENT → A–B DivX MPEG4 : OFF → ALL → GROUP[※1] → CONTENT JPEG : OFF → ALL → GROUP[※1] [※1] "GROUP" will not be displayed during program or random play.
SUBTITLE	**To select subtitle language** Example: DVD-V ``` T2 C2 ♪1:*** 2/0ch ⣿ ▶,x1.0 ⟳OFF 🎬 1:ENG 📐1 SUBTITLE ``` DVD-V DivX (with multiple subtitles) VCD (SVCD only) • On +R/+RW, a subtitle number may be shown for subtitles that are not displayed. • DVD-VR "ON" or "OFF" appears only with discs that contain subtitle on/off information (Subtitle on/off information cannot be recorded using Panasonic DVD Recorders).
ANGLE	(with multiple angles) **To select a video angle** Example: DVD-V ``` T2 C2 ♪1:*** 2/0ch ⣿ ▶,x1.0 ⟳OFF 🎬 1:ENG 📐1 ANGLE ```
PICTURE MODE	Example: DVD-V ``` 📺NORMAL 🔍NORMAL PICTURE MODE ``` **NORMAL** : Normal images. **CINEMA1** : Mellows images and enhances detail in dark scenes. **CINEMA2** : Sharpens images and enhances detail in dark scenes. **DYNAMIC** : Enhances the contrast for powerful images. **ANIMATION** : Suitable for animation.

ENGLISH

DISC OPERATIONS

Functions menu (continued)

ZOOM	**To select various zoom sizes** Example: DVD-V 🖼NORMAL 🔍NORMAL ZOOM **NORMAL** **AUTO** **x2** **x4**
SOURCE SELECT	DivX When you select "AUTO" the constructing method of the DivX contents is automatically distinguished and output. If the picture is distorted, select "INTERLACE" or "PROGRESSIVE" depending on which constructing method was used when the contents were recorded to disc. **AUTO** **INTERLACE** **PROGRESSIVE** Example: 🖼NORMAL 🔍NORMAL AUTO SOURCE SELECT
DIALOGUE ENHANCER	**To make the dialogue in movies easier to hear** Example: DVD-V OFF OFF DIALOGUE ENHANCER DVD-V (Dolby Digital, DTS, MPEG, 3-channel or higher, with the dialogue recorded in the center channel) DivX (Dolby Digital, 3-channel or higher, with the dialogue recorded in the center channel) **OFF ↔ ON**
Dolby PLII	**OFF → MOVIE → MUSIC** ⬆_____⏐ (➡ page 29, Enhancing the stereo sound : Dolby Pro Logic II) Example: DVD-V OFF OFF Dolby PLII
KARAOKE MODE[×2]	**OFF ↔ ON** (➡ page 30, Enjoying Karaoke) Example: DVD-V OFF KARAOKE MODE
TRANSFER MODE	Example: DVD-V 🖼NORMAL 🔍NORMAL AUTO TRANSFER MODE If you have set "VIDEO OUT (I/P)" to "PROGRESSIVE" (➡ page 24, "VIDEO" tab), press [▲, ▼] to select the method of conversion for progressive output to suit the type of material. • The setting will return to AUTO or AUTO1 when the disc tray is opened. When playing PAL discs or MPEG4 or DivX video contents **AUTO** : Automatically detects the film and video content, and appropriately converts it. **VIDEO** : Select when using AUTO, and the content is distorted. **FILM** : Select this if the edges of the film content appear jagged or rough when AUTO is selected. However, if the video content is distorted as shown in the illustration to the right, then select AUTO. When playing NTSC discs **AUTO1** : Automatically detects the film and video content, and appropriately converts it. **AUTO2** : In addition to AUTO1, automatically detects film contents with different frame rates and appropriately converts it. **VIDEO** : Select when using AUTO1 and AUTO2, and the content is distorted.

[×2] **For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait**

🎵 Changing the player settings

```
MAIN
 DISC
 VIDEO
 AUDIO
 DISPLAY
 OTHERS


 SELECT:▲▼
 SET:ENTER        EXIT:SETUP
```
Tab

⬇
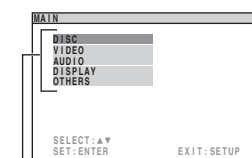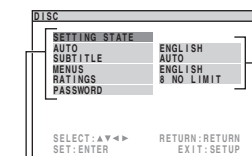
```
DISC
 SETTING STATE
 AUTO            ENGLISH
 SUBTITLE        AUTO
 MENUS           ENGLISH
 RATINGS         8 NO LIMIT
 PASSWORD


 SELECT:▲▼◄►     RETURN:RETURN
 SET:ENTER        EXIT:SETUP
```
Item   Setting

• If you have not performed QUICK SETUP (➡ page 12), the QUICK SETUP screen appears.
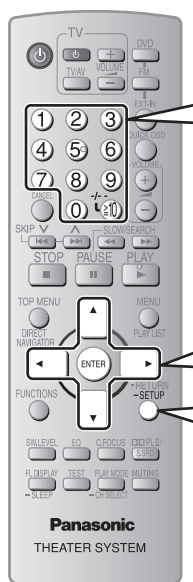
1 Display the MAIN menu.
-RETURN
-SETUP

(Press and hold)

2 Select the tab.
Select

Confirm

3 Select the item.
Select ▲ Confirm

Select ◄ ► Select

Select ▼

4 Make the settings.
Select ▲

ENTER

◄ ► Confirm

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⓪ ⩾10
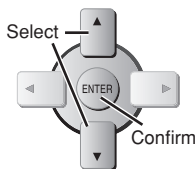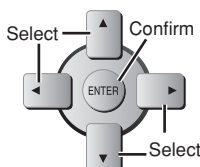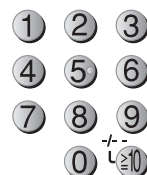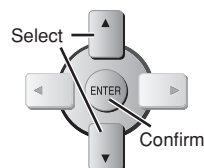
5 Press to exit.
-RETURN
-SETUP

(Press and hold)

• The settings remain intact even if you switch the unit to standby.
• Underlined items are the factory settings in the following table.

QUICK SETUP enables successive settings of the items in the shaded area.

MAIN menu

■ "DISC" tab

AUDIO Choose the audio language.	• <u>ENGLISH</u>	• (Language options)[※1]	• ORIGINAL[※2]	• OTHER − − − − [※3]
SUBTITLE Choose the subtitle language.	• <u>AUTO</u>[※4]	• ENGLISH	• (Language options)[※1]	• OTHER − − − − [※3]
MENUS Choose the language for disc menus. Changing the menu language in QUICK SETUP also changes this setting.	• <u>ENGLISH</u> • (Language options)[※1] • OTHER − − − − [※3]			
RATINGS Set a ratings level to limit DVD-Video play.	Setting ratings (When level 8 is selected) • 0 LOCK ALL: To prevent play of discs without rating levels. • 1 to 7: To prohibit play of DVD-Video with corresponding ratings recorded on them. • <u>8 NO LIMIT</u> When you select your ratings level, a password screen is shown. Enter your password and then follow the on-screen instructions. **Do not forget your password.** A message screen will be shown if a DVD-Video disc exceeding the ratings level is inserted in the unit. Follow the on-screen instructions.			
PASSWORD Change the password for "RATINGS".	• SETTING Changing ratings (When level 0 to 7 is selected) • CHANGE Follow the on-screen instructions.			

[※1] Language options :
  For Continental Europe, the Middle East, South Africa, Saudi Arabia and Kuwait :
  FRENCH, SPANISH, GERMAN, RUSSIAN, HUNGARIAN, CZECH and POLISH.
  For Southeast Asia and Thailand : CHINESE TRAD.
[※2] The original language designated on the disc is selected.
[※3] Input a code number referring to the table (➡ page 37).
[※4] If the language selected for "AUDIO" is not available, subtitle appears in that language (if available on the disc).

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QUICK SETUP enables successive settings of the items in the shaded area.

MAIN menu (continued)

■ "VIDEO" tab

TV ASPECT Choose the setting to suit your television and preference.	• 4 : 3 PAN&SCAN: Regular aspect television (4:3) The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc). • 4 : 3 LETTERBOX: Regular aspect television (4:3) Widescreen picture is shown in the letterbox style. • 4 : 3 ZOOM: Regular aspect television (4:3) The picture zooms in and out. • 16 : 9 NORMAL: Widescreen television (16:9) Laterally stretches image. • 16 : 9 SHRINK: Widescreen television (16:9) Images appear in the center of the screen. • 16 : 9 ZOOM: Widescreen television (16:9) Expands to 4:3 aspect ratio.
TV TYPE Select to suit the type of television.	• STANDARD • CRT • LCD • PROJECTION • PLASMA
TIME DELAY When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.	• 0 ms • 20 ms • 40 ms • 60 ms • 80 ms • 100 ms
NTSC DISC OUT Choose PAL 60 or NTSC output when playing NTSC discs (➡ page 13, Video systems).	• NTSC: When connected to a NTSC television. • PAL60: When connected to a PAL television. (※5 "NTSC" is the factory preset.)
STILL MODE Specify the type of picture shown when paused.	• AUTO • FIELD※6: The picture is not blurred, but picture quality is lower. • FRAME※6: Overall quality is high, but the picture may appear blurred.
VIDEO OUT – SCART※7 Choose the video signal format to be output from the SCART (AV) and Component terminal.	• VIDEO/YPbPr • S–VIDEO/YPbPr • RGB/NO OUTPUT
VIDEO OUT (I/P) Select "PROGRESSIVE" only if connecting to a progressive output compatible television.	• INTERLACE • PROGRESSIVE (a message screen will appear, follow the on-screen instructions)

■ "AUDIO" tab

DYNAMIC RANGE	• ON: Adjust for clarity even when the volume is low by compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital) • OFF

SPEAKER SETTINGS (➡ page 25)
Set the delay time for your center and surround speakers
	• SETTINGS
	   • C DELAY: • 0ms • 1ms • 2ms • 3ms • 4ms • 5ms
	   • SL/SR DELAY: • 0ms • 5ms • 10ms • 15ms

■ "DISPLAY" tab

LANGUAGE	※8 • ENGLISH • FRANÇAIS • ESPAÑOL • DEUTSCH • РУССКИЙ • MAGYAR • ČESKY • POLSKI ※5 • ENGLISH • 繁體中文

※5 **For Southeast Asia and Thailand**

※6 Refer to "Frame still and field still" (➡ page 38, Glossary).

※7 **For Continental Europe**

※8 **For Continental Europe , the Middle East, South Africa, Saudi Arabia and Kuwait**

MAIN menu (continued)

■ "OTHERS" tab

REGISTRATION DivX Displays the unit's registration code.	• SHOW CODE You need this registration code to purchase and play DivX Video-on-Demand (VOD) content. (➡ page 27, "About DivX VOD content")
JPEG TIME Set the speed of the slideshow.	• 1 SEC • 2 SEC • <u>3 SEC</u> • 4 SEC to 15 SEC • 15 SEC to 60 SEC (in 5-unit steps) • 60 SEC to 180 SEC (in 30-unit steps)
FL DIMMER Change the brightness of the unit's display.	• <u>BRIGHT</u> • DIM • AUTO: The display is dimmed, but brightens when you perform some operations.

QUICK SETUP	• SET
	   • <u>YES</u>
	   • NO

DVD-VR/DATA Select to play only DVD-VR or DATA format. (➡ page 19)	• <u>DVD-VR</u> • DATA
DEFAULTS This returns all values in the MAIN menu to the default settings.	• RESET The password screen is shown if "RATINGS" (➡ page 23) is set. Please enter the same password, then turn the unit off and on again.

Changing the delay time of the speakers

Effective when playing multi-channel audio
(Center and surround speakers only)
For optimum listening with 5.1-channel sound, all the speakers, except for the subwoofer, should be the same distance from the seating position. If you have to place the center or surround speakers closer to the seating position, adjust the delay time to make up for the difference.

◻ : Actual speakers position

▦ : Ideal speakers position

ⓐ ⓑ ⓒ : Primary listening distance

Circle of constant primary listening distance

Approximate room dimensions
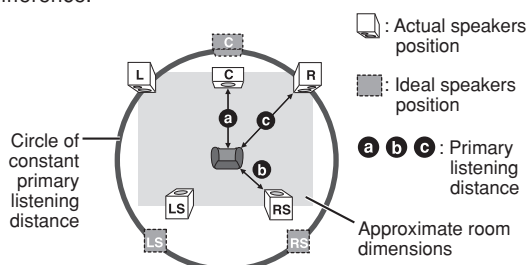
If either distance ⓐ or ⓑ is less than ⓒ, find the difference in the table and change to the recommended setting.

ⓐ Center speaker	
Difference (Approx.)	Setting
30 cm	1 ms
60 cm	2 ms
90 cm	3 ms
120 cm	4 ms
150 cm	5 ms

ⓑ Surround speaker	
Difference (Approx.)	Setting
150 cm	5 ms
300 cm	10 ms
450 cm	15 ms

■ To enter the speaker setting

1 To select the speaker.

▲ OR ▼ ⇨ ENTER

C DELAY = Center delay

SL / SR DELAY = Surround left / Surround right delay

2 To select the delay time.

▲ OR ▼ ⇨ ENTER

```
AUDIO-SPEAKER SETTINGS-C

SETTING STATE
C DELAY          ▶ 0ms
SL/SR DELAY        1ms
                   2ms
                   3ms
                   4ms
                   5ms


SELECT:▲▼◄►       RETURN:RETURN
SET:ENTER          EXIT:SETUP
```
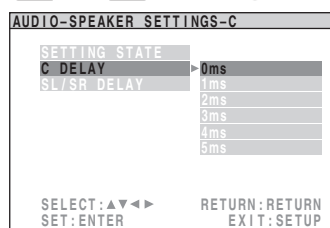
To exit the setup
Press and hold [–SETUP].

Tips for making data discs

- When there are more than eight groups, the eighth group onwards will be displayed on one vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

DVD-RAM
- Discs must conform to UDF 2.0.

DVD-R/RW
- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit does not support multi-session. Only the default session is played.

CD-R/RW
- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are many sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

Naming folders and files

Files are treated as contents and folders are treated as groups on this unit.
At the time of recording, prefix folder and file names. This should be with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times). Files must have the extension (➡ see below).

WMA (Extension: ".WMA" or ".wma")
- Compatible compression rate: between 48 kbps and 320 kbps.
- You cannot play WMA files that are copy-protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3 (Extension: ".MP3" or ".mp3")
- Compatible compression rate: between 32 kbps and 320 kbps.
- This unit does not support ID3 tags.
- Compatible sampling rates:
  – DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24, 44.1 and 48 kHz
  – CD-R/RW: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz

JPEG (Extension: ".JPG", ".jpg", ".JPEG" or ".jpeg")
- JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. Files that have been altered, edited or saved with computer picture editing software may not be displayed.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, and still pictures other than JPEG (Example: TIFF), or play pictures with attached audio.

MPEG4 (Extension: ".ASF" or ".asf")
- You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with Panasonic SD multi cameras or DVD video recorders with this unit.
- The recording date may differ from that of the actual date.

DivX (Extension: ".DIVX", ".divx", ".AVI" or ".avi")
- You can play all versions of DivX® video (including DivX®6) [DivX video system/MP3, Dolby Digital or MPEG audio system] with standard playback of DivX® media files. Functions added with DivX Ultra are not supported.
- DivX files greater than 2 GB or have no index may not be played properly on this unit.
- This unit supports all resolutions up to maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select up to eight types of audio and subtitles on this unit.

Disc handling precautions

- Do not attach labels or stickers to discs. This may cause disc warping, rendering it unusable.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not use the following discs:
  – Discs with exposed adhesive from removed stickers or labels (rented discs, etc).
  – Discs that are badly warped or cracked.
  – Irregularly shaped discs, such as heart shapes.

■ **To clean discs**
Wipe with a damp cloth and then wipe dry.
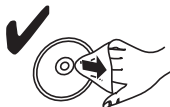
About DivX VOD content

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit.

Follow the online instructions for purchasing DivX VOD content to enter the unit's registration code and register the unit. For more information about DivX VOD, visit www.divx.com/vod.

■ Display the unit's registration code

(➡ page 25, "REGISTRATION (DIVX)" in "OTHERS" tab)

```
OTHERS-REGISTRATION(DIVX)

   DIVX(R) VIDEO ON DEMAND
   YOUR REGISTRATION CODE IS
   XXXXXXXX                          8 alphanumeric
   TO LEARN MORE VISIT               characters
   www.divx.com/vod



PRESS ENTER KEY TO CONTINUE
```
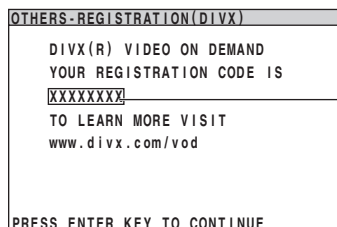
- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in "REGISTRATION (DIVX)". Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. ("Authorization Error" is displayed.)

■ Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. ("RENTAL EXPIRED" is displayed.)

When playing this content
- The number of remaining plays is reduced by one if
  – you press [⏻] or press and hold [–SETUP].
  – you press [■, STOP]. (Press [Ⅱ, PAUSE] to pause play.)
  – you press [|◀◀, ▶▶|] (skip) or [◀◀, ▶▶] (slow/search) etc. and arrive at another content or the start of the content being played.
- Resume (➡ page 17, Stop) function does not work.

🎧 Using the radio

Manual tuning

1 To select "FM".
SELECTOR
(main unit) **OR** FM (remote control)

2 To select "MANUAL".
-TUNE MODE/–FM MODE
(main unit)

3 To select the frequency.
|◄◄/◄◄ ►►/►►| ∨ ☐ TUNE ☐ ∧ **OR** SLOW/SEARCH ◄◄ ►►
(main unit) (remote control)

Press and hold [∨ TUNE ∧] until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

Presetting the channel

Remote control only
Up to 30 stations can be set for FM.

1. **While listening to the radio broadcast**
   Press [ENTER].
2. **While the frequency and "PGM" are flashing on the display**
   Press the numeric buttons to select a channel.
   • To select a 2-digit number
     Example: To select 12,
     [≧10] ⇨ 1 , 2   [CH 12]
   • Alternatively, press [∨, ∧], then press [ENTER].
   The station occupying a channel is erased if another station is preset to that channel.

Selecting the preset channels

1 To select "FM".
FM

2 To select the channel.
1 **TO** [≧10]
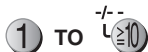
   • Alternatively, press [∨, ∧].
   • To perform the step on the main unit, first press [-TUNE MODE] to select "PRESET", and then press [∨ TUNE ∧] to select the channel. When a stereo FM broadcast is being received, "ST" lights in the display.

   (ST)
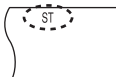
If noise is excessive in FM

Main unit only
Press and hold [–FM MODE] to display "MONO".
Press and hold [–FM MODE] again to cancel the mode. The mode is also cancelled when you change the frequency.

Automatic presetting

1 To select "FM".
SELECTOR
(main unit) **OR** FM (remote control)

2 Press and hold.
►○ MEMORY
(main unit) **OR** ENTER (remote control)

Release the button when "FM AUTO" is displayed.

The tuner tunes to the lowest frequency and starts to preset all the stations it can receive into the channels in ascending order.
• "SET OK" is displayed when the stations are set, and the radio tunes to the last preset station.
• "ERROR" is displayed when automatic presetting is unsuccessful. Preset the channels manually (➡ see left).

RDS broadcasting

For Continental Europe
The unit can display the text data transmitted by the radio data system (RDS) available in some areas.
If the station you are listening to is transmitting RDS signals, "RDS" will light up on the display.

When "FM" is selected

FUNCTIONS ⇨ PS (factory preset) → PTY → FREQ

PS   : Program service
PTY : Program type
FREQ : Frequency display

PTY displays			
NEWS	VARIED	FINANCE	COUNTRY
AFFAIRS	POP M	CHILDREN	NATIONAL
INFO	ROCK M	SOCIAL A	OLDIES
SPORT	M-O-R- M※	RELIGION	FOLK M
EDUCATE	LIGHT M	PHONE IN	DOCUMENT
DRAMA	CLASSICS	TRAVEL	TEST
CULTURE	OTHER M	LEISURE	ALARM
SCIENCE	WEATHER	JAZZ	

※ "M-O-R- M" = Middle-of-the-Road music

Note
RDS displays may not be available if reception is poor.

🎵 Using sound effects

- The following sound effects may not be available or have no effect depending on the type of source.
- You may experience a reduction in sound quality when these sound effects are used with some sources. If this occurs, turn the sound effects off.

Enhancing the sound from the center speaker: Center Focus

This applies to discs where the dialogue is recorded in the center channel.
You can make the sound of the center speaker seem like it is coming from within the television.

C.FOCUS ⟹ C FOCUS ON ↔ C FOCUS OFF

- This also works when Dolby Pro Logic II is turned on.

Adjusting the amount of bass: Subwoofer level

You can adjust the amount of bass. The unit automatically selects the most suitable setting according to the type of playback source.

SW.LEVEL
⟱

- DVD-V DVD-VR

  For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

  SUB W 4 (factory preset) → SUB W 1
  └── SUB W 3 ← SUB W 2 ←┘
- **When AV or AUX source is selected**
  For Continental Europe

  SUB W 1 (factory preset) → SUB W 2
  └── SUB W 4 ← SUB W 3 ←┘
- **When another source is selected**
  SUB W 2 (factory preset) → SUB W 3
  └── SUB W 1 ← SUB W 4 ←┘

- To check the current setting, press [SW.LEVEL].
- The setting you make is retained, and recalled every time you play the same type of source.

Changing the sound quality: Equalizer Mode (EQ)

EQ ⟹
SOFT※ : For background music.
FLAT : Cancel (no effect is added) (factory preset).
HEAVY : Adds punch to rock.
CLEAR : Clarifies higher sounds.

- To check the current setting, press [EQ].
- You can adjust the volume of the surround speakers to get the best surround effect (➡ page 30, Adjusting the volume of each speaker: Speaker level adjustments).

Enhancing the stereo sound: Dolby Pro Logic II

Except DivX
Dolby Pro Logic II is an advanced decoder that derives 5-channel surround (Left and Right Front, Center, Left and Right Surround) from stereo sound sources, whether or not it has been specifically Dolby Surround encoded.

DOLBY PLII/ S.SRD ⟹
MOVIE : Movie software, recorded in Dolby Surround.
MUSIC : Stereo sources.
OFF : Cancel

- This function is only available for DVD/CD and USB mode.
- "DOLBY PLII" lights when there is effect.

Enhancing the stereo sound: Super Surround

DOLBY PLII/ S.SRD ⟹
MOVIE : Use this mode when playing movie software.
MUSIC : Adds surround effects to stereo sources.
OFF : Cancel

- Super Surround and EQ can be turned on simultaneously.
- This function is only available for FM, AV, AUX and MUSIC P. mode.

※ **For Continental Europe** Factory preset when AV or AUX source is selected.

ENGLISH

OTHER OPERATIONS

🎵 *Using sound effects (continued)*

Adjusting the volume of each speaker: Speaker level adjustments

This is one of the ways to get appropriate surround effects.

Preparation

DVD

1 While stopped and no on-screen display is shown **To output a test signal.**

TEST

L: Front left   C: Center
R: Front right   RS: Right surround
LS: Left surround
• There is no output from SW (subwoofer) channel.

2 **To set the volume level normally used for listening.**

VOLUME
+
−

3 **To adjust the speaker level for each speaker.**

▲ **OR** ▼

• Adjust the speaker levels to the same level as the front speakers.
C, RS, LS: −6 dB to +6 dB

To stop the test signal
Press [TEST] again.

To adjust speaker level during play
[Effective when playing multi-channel audio or when Dolby Pro Logic II is on.]

1. **Press and hold [−CH SELECT] to select the speaker.**

L → C → R → RS → LS → SW

SW: Subwoofer
• You can adjust SW only if the disc includes a subwoofer channel.
• "SW" does not appear on the display and is not adjustable when "ᴰᴰPLII" is lit.
• "S" appears on the display when "MOVIE", "MUSIC" is selected with Super Surround (➡ page 29).
In this case, you can adjust both surround speaker levels at the same time using [▲, ▼].
S: −6 dB to +6 dB

2. **Press [▲] (increase) or [▼] (decrease) to adjust the speaker level for each speaker.**
C, RS, LS, SW: −6 dB to +6 dB
(L, R: Only the balance is adjustable.)
• To adjust the balance of the front speakers, while "L" or "R" is selected, press [◄, ►].

🎵 Enjoying karaoke

Preparation

1 **Lower the microphone volume to "MIN".**

2 **Connect the microphone to the jack.**
Use a dynamic microphone.
Microphone plug type: Ø6.3 mm monaural (not included).

Note

• If a strange noise (howling) is emitted during use, move the microphone away from the speakers, or turn down the microphone volume.
• When you are not using the microphone, disconnect it from the microphone jack, and turn down the microphone volume level to "MIN".
• While karaoke mode is turned on, multi channel signals will be down-mixed to 2 channel signals.
• Karaoke function will automatically turn off when the tray opens, when you change the source or when the unit is turned off.

Enjoying karaoke with karaoke DVD and VCD

DVD-V | VCD

1 **Start playback.**
PLAY
►

2 **To display the audio menu on the television.**
−FUNCTIONS
−KARAOKE

(Press and hold)

3 **To switch on the karaoke function.**

ENTER ⇨ ▲ **OR** ▼ ⇨ **OFF ↔ ON**

ON   OFF   OFF
L R
KARAOKE MODE

4 **Adjust the mic volume and sing along.**
To exit the screen
Press [−KARAOKE].

Enjoying karaoke with other sources

You can also perform karaoke with discs other than those described and also in USB mode.

1 Start play.
   Refer to the pages for the source
   – Discs: (➡ page 16), Disc – Basic play
   – Optional USB connection and operation (audio mode does not work) (➡ page 33).

2 Make the selection (➡ see below, Audio mode)**.**
   Only necessary if the vocals and melody are spilt between the left and right channels.

   FUNCTIONS
   KARAOKE

3 Start singing (➡ see right, Mic volume adjustment). Even if the vocals and melody are not split, you may still be able to lower the volume of the vocals. (➡ see right, Vocal cancel function)

Audio mode (AUDIO CHANGE)

1 Repeat steps 1 to 3 of Enjoying karaoke with karaoke DVD and VCD (➡ page 30)**.**

2 To select "AUDIO CHANGE".

   ▼ ⇨ ENTER

   ```
   ON          OFF          OFF
   L  R
   AUDIO CHANGE
   ```

3 To select audio mode.

   ▲ OR ▼

   DVD-V (Karaoke discs)
   Solo
   Off : No vocal
   On : Vocal

   Duet
   Off :   No vocal
   V1+V2 : Vocal 1 and 2
   V1 :   Vocal 1
   V2 :   Vocal 2
   • Choose "Off" for karaoke.
   • Choose "V1" or "V2" to duet with the player.

   VCD and other sources
   L R: Left channel sound is heard from the left speaker and right channel sound is heard from the right speaker — vocal and accompaniment
   L: Only left channel sound — no vocal
   R: Only right channel sound — vocal
   L + R: Left and right channel sounds are mixed and heard from both speakers.

   • Select no vocal for karaoke.
   • Vocal and no vocal may be reversed.

Mic volume adjustment

Main unit only

Turn to adjust the microphone's volume level.

   MIC VOL

   MIN   MAX

Adding an echo effect

   SW.LEVEL
   ECHO   ⇨ ECHO OFF → ECHO 1 → ECHO 2
                    ⌐— ECHO 4 ← ECHO 3 ←⌐
   (Press and hold)

The effect increases with the level.

Vocal cancel function

Use this function on stereo sources to block out the vocals so you can sing along to the music.

1 Repeat steps 1 to 3 of Enjoying karaoke DVD and VCD (➡ page 30).

2 To select "VOCAL CANCEL".

   ▶ ⇨ ENTER

   ```
   ON          OFF          ON
   L  R
   VOCAL CANCEL
   ```

3 To switch the function on or off.

   ▲ OR ▼ ⇨ OFF ↔ ON

This function is not suitable for the following sources.
• Monaural recordings
• Chorus works or duets

Changing the pitch

Use this function to change the pitch level.

1 Repeat steps 1 to 3 of Enjoying karaoke DVD and VCD (➡ page 30).

2 To select "KEY CONTROL".

   ▶ ⇨ ENTER

   ```
   ON          #1          OFF
   L  R
   KEY CONTROL
   ```

3 To select the pitch level.

   ▲ OR ▼ ⇨ ♭6 ↔ ... OFF ... ↔ #6

ENGLISH

OTHER OPERATIONS

🎛 Operating other equipment

Optional antenna connection

Use the outdoor antenna if radio reception is poor.

FM outdoor antenna
(Using a television antenna)

FM ANT (75Ω)

Rear panel of this main unit

FM outdoor antenna (not included)

75 Ω coaxial cable (not included)
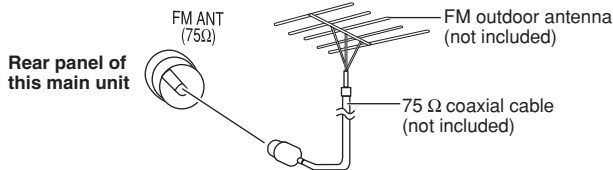
• Disconnect the FM indoor antenna.
• The outdoor antenna should be installed by a competent technician.

Note
• Disconnect the outdoor antenna when the unit is not in use.
• Do not use the outdoor antenna during a lightning storm.

Optional connection for set top box, cable TV box or video cassette recorder

For Continental Europe

Set top box (not included)

AV OUT

Television (not included)

AV1

AV2

Rear panel of this main unit

AV

SCART cable (not included)
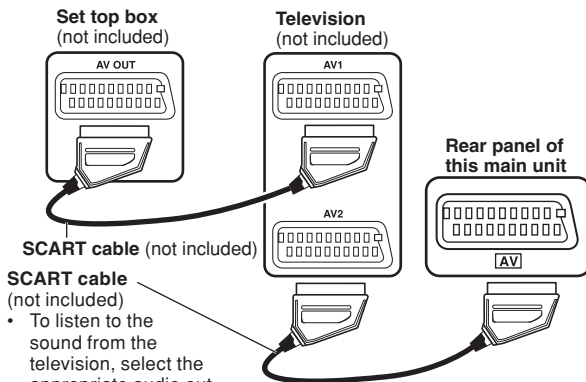
SCART cable (not included)
• To listen to the sound from the television, select the appropriate audio out (example: Monitor) on the television.

Sound from the television
• Press [EXT-IN] (➜ page 34) to select the "AV" audio input on the remote control.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

To your cable TV service or television antenna

RF cable (not included)

Audio cable (not included)

RF IN
RF OUT

Television (not included)

RF IN

AUDIO OUT
L
R

AUDIO IN

VIDEO OUT

VIDEO IN

Rear panel of this main unit

COMPONENT VIDEO OUT
P$_B$ Y

AUX

P$_R$

VIDEO OUT

Cable TV box or video cassette recorder (not included)

Video cable (included)
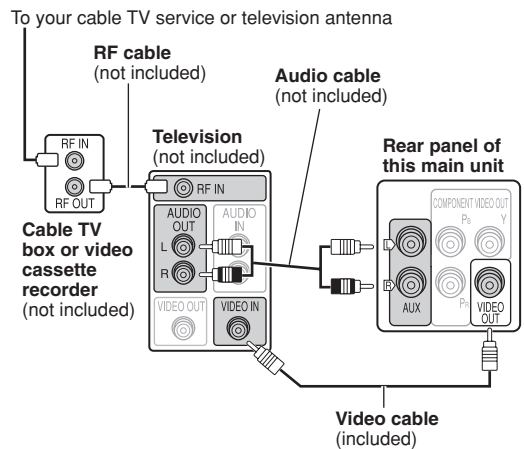
Optional audio connection for video cassette recorder or television

Press [EXT-IN] (➜ page 15) to select "AUX" as the source to operate the audio input.

For Continental Europe

This audio connection will enable you to play audio from your video cassette recorder through your home theater system.

Video cassette recorder (not included)

AUDIO OUT
L
R

Rear panel of this main unit

AUX

Audio cable (not included)
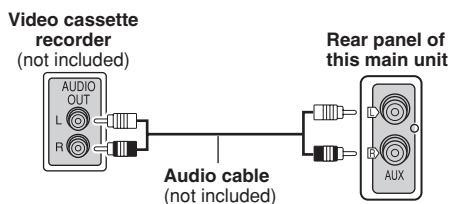
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

This audio connection will enable you to play audio from your television through your home theater system.

Television (not included)

Audio cable (not included)

RF IN

AUDIO OUT
L
R

AUDIO IN

VIDEO OUT

VIDEO IN

COMPONENT VIDEO OUT
P$_B$ Y

AUX

P$_R$

VIDEO OUT

Rear panel of this main unit

Video cable (included)
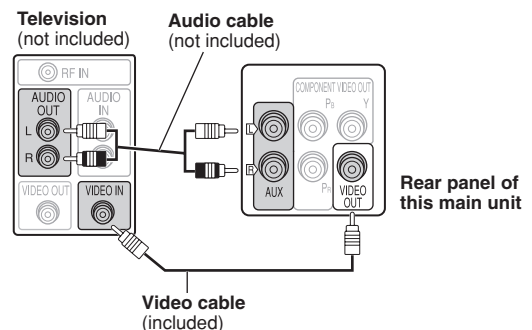
Optional Music Port connection and operation

The Music Port allows you to connect and enjoy music from an external device (example: MP3 player) through your home theater system.

Preparation
To avoid distorted sound, make sure that any equalizer function of your external device is turned off.

1 **Reduce the volume and connect the external device (not included).**
Plug type: Ø3.5 mm stereo mini plug

External device
(not included)
Reduce the volume before connecting.

2 **To select "MUSIC P.".**

EXT-IN

$$\rightarrow USB \rightarrow AV^{\times} \rightarrow AUX$$
$$\text{MUSIC P.} \leftarrow$$

3 **Adjust the external device volume to a normal listening level, and then adjust the volume of the main unit.**

VOLUME
− +

• You can enjoy surround sound when you turn on Super Surround (MOVIE, MUSIC) (➡ page 29).

Optional USB connection and operation

WMA MP3 JPEG MPEG4

The USB connectivity enables you to connect and play tracks or files from USB mass storage class devices. Typically, USB memory devices. (Bulk only transfer)

Preparation
Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

It is not recommended to use a USB extension cable. The USB device is not recognised by this unit.

1 **Connect the USB mass storage device (not included).**

USB enabled device
(not included)
It is not recommended to use a USB extension cable. The device connected via the cable will not be recognised by this unit.

2 **To select "USB" as the source, press several times.**

EXT-IN

$$\rightarrow \textbf{USB} \rightarrow AV^{\times} \rightarrow AUX$$
$$\text{MUSIC P.} \leftarrow$$
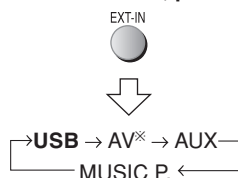
Select the desired item for playback.

▲ OR ▼ ⇨ ENTER

Example:

```
PLAYBACK MENU

AUDIO/PICTURE
VIDEO
```

⇩

```
USB
ROOT
  Fish Leong
  MP3 ID3 TAG
  jpeg
  MPEG4
  WMA
```
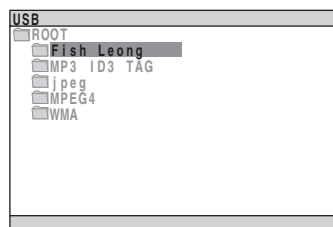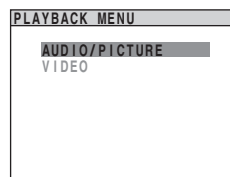
3 **Adjust the volume of the main unit.**

VOLUME
− +

4 **Begin playback by selecting the track from the USB mass storage device.**

Example:

```
USB
ROOT/FISH LEONG
TRACK 01      TRACK 11
TRACK 02      TRACK 12
TRACK 03      TRACK 13
TRACK 04      TRACK 14
TRACK 05      TRACK 15
TRACK 06      TRACK 16
TRACK 07      TRACK 17
TRACK 08      TRACK 18
TRACK 09
TRACK 10
```

▲ OR ▼ ⇨ ENTER OR PLAY ►
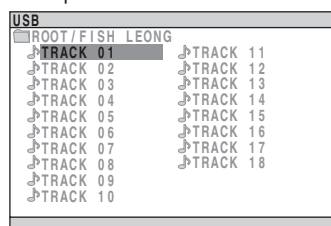
To return to the previous screen
Press [-RETURN].

For other operating functions, they are similar as those described on "DISC OPERATIONS" (➡ page 16 to 27).

ENGLISH

OTHER OPERATIONS

※ **For Continental Europe**

Optional USB connection and operation (continued)

Compatible Devices

- **Devices which are defined as USB mass storage class:**
  – USB devices that support bulk only transfer.
  – USB devices that support USB 2.0 full speed.

Supported Formats

	File name	File extension
Still pictures	JPG※1	.jpg .jpeg
Music	MP3 WMA	.mp3 .wma
Video	MPEG4 ※2	.asf

※1 It may not be possible to play all the files due to the condition on how they were created.
※2 For Panasonic D-Snap/DIGA.

Note
- CBI (Control/Bulk/Interrupt) is not supported.
- Digital Cameras that use PTP protocol or which require additional program installation when connected to a PC are not supported.
- A device using NTFS file system is not supported. [Only FAT 12/16/32 (File Allocation Table 12/16/32) file system is supported].
- Depending on the sector size, some files may not work.
- It will not operate with Janus enabled MTP (Media Transfer Protocol) devices.
- Maximum folder: 256 folders
- Maximum file: 4000 files
- Maximum file name: 12 characters
- Maximum folder name: 12 characters
- Only one memory card will be selected when connecting a multi-port USB card reader. Typically the first memory card inserted.

Operating the television

You can use the remote control to operate a Panasonic television.
Aim the remote control at the television.

To switch the television on or off

⏻

To switch the television's video input mode

TV/AV

Adjust the volume

+
VOLUME
−

To play audio from your television through your home theater system

Preparation
Connect your equipment referring to "Connect to the various television terminals" (➡ page 11).

For Continental Europe
Press [EXT-IN] to select "AV" as the source. Then reduce the volume on the television to its minimum, and control the volume on this main unit.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait
Press [EXT-IN] to select "AUX" as the source. Then reduce the volume on the television to its minimum, and control the volume on this main unit.

Note
- The remote control may not work properly with some models.
- You can enjoy 5.1-channel surround sound when you turn on Super Surround (MOVIE, MUSIC) (➡ page 29).

Changing the main unit and remote control

The remote control and main unit are factory-set to "REMOTE 1" mode.
If your remote control affects other equipment during operation, you can switch to operate in "REMOTE 2" mode.

To switch to "REMOTE 2" mode

1 While pressing and holding [►►/►►|] on the main unit
②

"REMOTE 2" appears on the main unit display.

2 To operate in "REMOTE 2" mode

(ENTER) + ②

(Press and hold for 2 seconds)

To return to "REMOTE 1" mode
Perform steps 1 and 2 but use [1] instead of [2] for both steps. ("REMOTE 1" appears on the main unit during step 1.)
The remote control cannot work with the main unit if their modes are different.
"REMOTE 1" or "REMOTE 2" appears on the main unit display when you operate the remote control.
- If "REMOTE 1" appears (The main unit is in "REMOTE 1" mode.)
  Press and hold [ENTER] and [1] on the remote control for at least 2 seconds.
- If "REMOTE 2" appears (The main unit is in "REMOTE 2" mode.)
  Press and hold [ENTER] and [2] on the remote control for at least 2 seconds.

Note
You can still operate a television using the remote control (➡ see above) even after switching the mode.

🎛️ Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated in the chart do not solve the problem, consult your dealer for instructions.

■ Power

		Page
No power.	• Insert the AC mains lead securely.	10
The unit is automatically switched to the standby mode.	• The Sleep timer was working and had reached the set time limit.	15

■ Unresponsive or inoperable function

No response when any buttons are pressed.	• This unit cannot play discs other than the ones listed in these operating instructions.	13
	• The unit may not be operating properly due to lightning, static electricity or some other external factor. Turn the unit off and then back to on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it.	—
	• Condensation has formed: Wait 1 to 2 hours for it to evaporate.	—
Other products respond to the remote control.	• Change the remote control operating mode.	34
No response when remote control buttons are pressed.	• Check that the batteries are installed correctly.	6
	• The batteries are depleted. Replace them with new ones.	6
	• Aim the remote control at the remote control signal sensor and operate.	14
No picture or sound.	• Check the video or speaker connection.	10, 11
	• Check the power or input setting of the connected equipment and the main unit.	—
	• Check that the disc has something recorded on it.	—
You have forgotten your ratings password. Reset all the settings to Factory Preset.	• While stopped and "DVD/CD" is the source, press and hold [■] on the main unit and [≧10] on the remote control until "INITIALIZED" (or "INITIALISED") disappears from the television. Turn the unit off and on again. All settings will return to the default values.	—

■ Specific operation undesirable or unexpected

It takes time before play starts.	• Play may take time to begin when an MP3 track has still picture data. Even after the track starts, the correct play time will not be displayed. This is normal. `MP3`	—
	• This is normal on DivX video. `DivX`	—
Folders on a data CD are not displayed correctly. `WMA` `MP3` `JPEG` `MPEG4` `DivX`	• Folders deeper than the eighth layer are displayed as the eighth layer.	—
A menu screen appears during skip or search. `VCD`	• This is normal for Video CDs.	—
Playback control menu does not appear. `VCD` with playback control	• Press [■, STOP] twice and then press [▶, PLAY].	—
The program and random play functions do not work. `DVD-V`	• These functions do not work with some DVD-Videos.	—
Play does not start.	• This unit may not play WMA and MPEG4 that contains still picture data.	—
	• If playing DivX VOD content, refer to the homepage where you purchased the DivX VOD content. (Example: www.divx.com/vod) `DivX`	—
	• If a disc contains CD-DA and other formats, proper playback may not be possible.	—

■ Subtitle

No subtitles.	• Display the subtitles. ("SUBTITLE" in Functions menu)	21
	• Subtitles may not be displayed depending on the disc. `DivX`	21

■ A-B repeat

Point B is automatically set.	• The end of an item becomes point B when it is reached.	—

■ Menus

The Setup menu cannot be accessed.	• Select "DVD/CD" as the source.	—
	• Cancel program and random play.	18
	• Cancel JPEG's playback.	—

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REFERENCE

RQTX0055

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■ Sound abnormal or improper
<div align="right">Page</div>

Sound is distorted.	• Noise may occur when playing WMA.	—
Effects do not work.	• Some audio effects do not work or have less effect with some discs.	—
	• Dolby Pro Logic II does not work if you have changed the play speed.	—
Humming is heard during play.	• An AC mains lead or fluorescent light is near the main unit. Keep other appliances and cables away from the main unit.	—
No sound.	• There may be a slight pause in sound when you change the play speed.	—
	• Audio may not be output due to how files were created. `DivX`	—

■ Picture abnormal or unviewable

The picture on the television is not displayed correctly or disappears.	• The unit and television are using different video systems.	—
	※1 Use a multi-system or NTSC television.	
	※2 Use a multi-system or PAL television.	
	• The system used on the disc does not match your television.	
	– PAL discs cannot be correctly viewed on an NTSC television.	—
	– This unit can convert NTSC signals to PAL 60 for viewing on a PAL television ("NTSC DISC OUT" in "VIDEO" tab).	24
	• Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder.	32
	• Mobile telephone chargers can cause some disturbance.	—
	• If you are using an indoor television antenna, change to an outdoor antenna.	—
	• The television antenna wire is too close to the unit. Move it away from the unit.	—
	• Change "SOURCE SELECT" in Functions menu. `DivX`	22
Picture stops. `DivX`	• Picture may stop if the DivX files are greater then 2 GB.	—
Picture size does not fit the screen.	• Change "TV ASPECT" in the "VIDEO" tab.	24
	• Use the television to change the aspect.	—
	• Change the zoom setting. ("ZOOM" in Functions menu)	22
Menu is not displayed correctly.	• Restore the zoom ratio to "NORMAL". ("ZOOM" in Functions menu)	22
Auto zoom function does not work well.	• Turn off television zoom function.	—
	• Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.	—
When playing PAL disc, picture is distorted.	• Set "TRANSFER MODE" in Functions menu to "AUTO".	22

■ Progressive video

Pictures not in progressive output.	• Select "PROGRESSIVE" in "VIDEO OUT (I/P)" in the "VIDEO" tab.	24
	• The unit's VIDEO OUT terminal outputs the interlaced signal even if "PRG" is displayed.	11

■ Unit displays

The display is dark.	• Select "BRIGHT" in "FL DIMMER" in the "OTHERS" tab.	25
"NO PLAY"	• You inserted a disc the unit cannot play; insert one it can.	13
	• You inserted a blank disc.	—
	• You inserted a disc that has not been finalized.	—
"NO DISC"	• You have not inserted a disc; insert one.	—
	• You have not inserted the disc correctly; insert it correctly.	16
"OVER CURRENT ERROR"	• The USB device is drawing too much power. Switch to DVD/CD mode, remove the USB and turn the unit off.	—
"F61"	• Check and correct the speaker cable connections. If this does not fix the problem, consult the dealer.	10
"F76"	• There is a power supply problem. Consult the dealer.	—
"DVD U11"	• Disc may be dirty. Wipe it clean.	26
"ERROR"	• Incorrect operation performed. Read the instructions and try again.	—
"DVD H □ □" **"DVD F □ □ □"** □ stands for a number.	• Trouble may have occurred. The numbers following "H" and "F" depend on the status of the unit. Turn the unit off and then back on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it.	—
	• If the service numbers fail to clear, note the service number and contact a qualified service person.	—
"REMOTE 1" or "REMOTE 2"	• Match the modes on the main unit and remote control. Depending on the number being displayed ("1" or "2"), press and hold [ENTER] and the corresponding numbered button ([1] or [2]) for at least 2 seconds.	34

※1 For Southeast Asia and Thailand

※2 For the Middle East, South Africa, Saudi Arabia, Kuwait and Continental Europe

■ Television displays
		Page
"⊘"	• The operation is prohibited by the unit or disc.	—
"ERROR"	• You are trying to display an incompatible group or content. • You are trying to play a protected group or content. You cannot play it.	— —
"Check the disc"	• This disc may be dirty.	—
"This disc may not be played in your region"	• Only DVD-Video discs that include or have the same region number as the one on the rear panel of this unit can be played.	Cover page
"Authorization Error" `DivX`	• You are trying to play the DivX VOD content that was purchased with a different registration code. You cannot play the content on this unit.	27
"RENTAL EXPIRED" `DivX`	• The DivX VOD content has zero remaining plays. You cannot play it.	27

■ USB
The USB drive or its contents cannot be read.	• The USB drive format or its contents is/are not compatible with the system. • The USB host function of this product may not work with some USB devices. • USB devices with storage capacity of more than 32 GB may not work in some instances.	— — —
Slow operation of the USB device.	• Large file size or high memory USB flash drive takes longer time to read and display on the TV.	—

■ Listening to the radio
Distorted sound or noise is heard. **"ST" flickers or does not light.**	• Adjust the position of the FM antenna. • Use an outdoor antenna.	— 32
A beat sound is heard.	• Turn the television off or move it away from the unit.	—

🎶 Language code list

Abkhazian:	6566	Danish:	6865	Italian:	7384	Norwegian:	7879	Swedish:	8386
Afar:	6565	Dutch:	7876	Japanese:	7465	Oriya:	7982	Tagalog:	8476
Afrikaans:	6570	English:	6978	Javanese:	7487	Pashto, Pushto:	8083	Tajik:	8471
Albanian:	8381	Esperanto:	6979	Kannada:	7578	Persian:	7065	Tamil:	8465
Ameharic:	6577	Estonian:	6984	Kashmiri:	7583	Polish:	8076	Tatar:	8484
Arabic:	6582	Faroese:	7079	Kazakh:	7575	Portuguese:	8084	Telugu:	8469
Armenian:	7289	Fiji:	7074	Kirghiz:	7589	Punjabi:	8065	Thai:	8472
Assamese:	6583	Finnish:	7073	Korean:	7579	Quechua:	8185	Tibetan:	6679
Aymara:	6589	French:	7082	Kurdish:	7585	Rhaeto-Romance:	8277	Tigrinya:	8473
Azerbaijani:	6590	Frisian:	7089	Laotian:	7679	Romanian:	8279	Tonga:	8479
Bashkir:	6665	Galician:	7176	Latin:	7665	Russian:	8285	Turkish:	8482
Basque:	6985	Georgian:	7565	Latvian, Lettish:	7686	Samoan:	8377	Turkmen:	8475
Bengali; Bangla:	6678	German:	6869	Lingala:	7678	Sanskrit:	8365	Twi:	8487
Bhutani:	6890	Greek:	6976	Lithuanian:	7684	Scots Gaelic:	7168	Ukrainian:	8575
Bihari:	6672	Greenlandic:	7576	Macedonian:	7775	Serbian:	8382	Urdu:	8582
Breton:	6682	Guarani:	7178	Malagasy:	7771	Serbo-Croatian:	8372	Uzbek:	8590
Bulgarian:	6671	Gujarati:	7185	Malay:	7783	Shona:	8378	Vietnamese:	8673
Burmese:	7789	Hausa:	7265	Malayalam:	7776	Sindhi:	8368	Volapük:	8679
Byelorussian:	6669	Hebrew:	7387	Maltese:	7784	Singhalese:	8373	Welsh:	6789
Cambodian:	7577	Hindi:	7273	Maori:	7773	Slovak:	8375	Wolof:	8779
Catalan:	6765	Hungarian:	7285	Marathi:	7782	Slovenian:	8376	Xhosa:	8872
Chinese:	9072	Icelandic:	7383	Moldavian:	7779	Somali:	8379	Yiddish:	7473
Corsican:	6779	Indonesian:	7378	Mongolian:	7778	Spanish:	6983	Yoruba:	8979
Croatian:	7282	Interlingua:	7365	Nauru:	7865	Sundanese:	8385	Zulu:	9085
Czech:	6783	Irish:	7165	Nepali:	7869	Swahili:	8387		

ENGLISH

REFERENCE

🔖 Glossary

Decoder
A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

DivX
DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size.

Dolby Digital
This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

DTS (Digital Theater Systems)
This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

Dynamic range
Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

Film and video
DVD-Videos are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.
Film: Recorded at 25 frames per second (PAL discs) or 24 frames per second (NTSC discs). (NTSC discs recorded at 30 frames per second as well). Generally appropriate for motion picture films.
Video: Recorded at 25 frames/50 fields per second (PAL discs) or 30 frames/60 fields per second (NTSC discs). Generally appropriate for TV drama programs or animation.

Frame still and field still
Frames are the still pictures that go together to make a moving picture.
There are about 30 frames shown each second.
One frame is made up of two fields. A regular television shows these fields one after the other to create frames.
A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high.
A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

I/P/B
MPEG 2, the video compression standard adopted for use with DVD-Video, codes frames using these 3 picture types.
I: Intra coded picture
This picture has the best quality and is the best to use when adjusting the picture.
P: Predictive coded picture
This picture is calculated based on past I or P-pictures.
B: Bidirectionally-predictive coded picture
This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

JPEG (Joint Photographic Experts Group)
This is a system used for compressing/decoding color still pictures. If you select JPEG as the storage system on digital cameras, etc., the data will be compressed to 1/10–1/100 of its original size. The benefit of JPEG is less deterioration in picture quality considering the degree of compression.

Linear PCM (Pulse Code Modulation)
These are uncompressed digital signals, similar to those found on CDs.

MP3 (MPEG Audio Layer 3)
An audio compression method that compresses audio to approximately one tenth of its size without any considerable loss of audio quality.

MPEG4
A compression system for use on mobile devices or a network, that allows highly efficient recording at a low bit rate.

Playback control (PBC)
If a Video CD has playback control, you can select scenes and information with menus.

Progressive/Interlaced
The PAL video signal standard has 576 interlaced (i) scan lines, whereas progressive scanning, called 576p, uses twice the number of scan lines. For the NTSC standard, these are called 480i and 480p respectively.
Using progressive output, you can enjoy the high-resolution video recorded on media such as DVD-Video. Your television must be compatible to enjoy progressive video.

Sampling frequency
Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding).
Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

WMA (Windows Media™ Audio)
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

🔊 Specifications

AMPLIFIER SECTION

For Continental Europe

RMS Output Power: Dolby Digital Mode
Front Ch   125 W per channel (3 Ω), 1 kHz, 10 % THD
Surround Ch 125 W per channel (3 Ω), 1 kHz, 10 % THD
Center Ch   125 W per channel (3 Ω), 1 kHz, 10 % THD
Subwoofer Ch

            125 W per channel (3 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power   750 W

DIN Output Power: Dolby Digital Mode
Front Ch   75 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch 75 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch   75 W per channel (3 Ω), 1 kHz, 1 % THD
Subwoofer Ch

            75 W per channel (3 Ω), 100 Hz, 1 % THD
Total DIN Dolby Digital mode power   450 W

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

RMS Output Power: Dolby Digital Mode
Front Ch   125 W per channel (3 Ω), 1 kHz, 10 % THD
Surround Ch 125 W per channel (3 Ω), 1 kHz, 10 % THD
Center Ch   125 W per channel (3 Ω), 1 kHz, 10 % THD
Subwoofer Ch

            125 W per channel (3 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power   750 W

PMPO output power   5600 W

DIN Output Power: Dolby Digital Mode
Front Ch   75 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch 75 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch   75 W per channel (3 Ω), 1 kHz, 1 % THD
Subwoofer Ch

            75 W per channel (3 Ω), 100 Hz, 1 % THD
Total DIN Dolby Digital mode power   450 W

FM TUNER, TERMINALS SECTION

Preset Memory   FM 30 stations

Frequency Modulation (FM)
Frequency range   87.50 to 108.00 MHz (50-kHz step)
Sensitivity   1.8 µV (IHF)
S/N 26 dB   1.4 µV
Antenna terminals   75 Ω (unbalanced)

Phone jack
Terminal   Stereo, 3.5 mm jack

Mic jack

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

Sensitivity   0.7 mV, 1.2 kΩ
Terminal   Mono, 6.3 mm jack (2 system)

Music Port (Front)
Sensitivity   100 mV, 1.4 kΩ
Terminal   Stereo, 3.5 mm jack

VIDEO SECTION

Video system   PAL625/50, PAL525/60, NTSC

Composite video output
Output level   1 Vp-p (75 Ω)
Terminal
   For Continental Europe   Scart jack (1 system)
   For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait   Pin jack (1 system)

For Continental Europe

S-video output
Y output level   1 Vp-p (75 Ω)
C output level   PAL; 0.3 Vp-p (75 Ω)
                      NTSC; 0.286 Vp-p (75 Ω)
Terminal   Scart jack (1 system)

Component video output
(NTSC: 480p/480i, PAL: 576p/576i)
Y output level   1 Vp-p (75 Ω)
P_B output level   0.7 Vp-p (75 Ω)
P_R output level   0.7 Vp-p (75 Ω)
Terminal   Pin jack (Y: green, P_B: blue, P_R: red) (1 system)

For Continental Europe

RGB video output
R output level   0.7 Vp-p (75 Ω)
G output level   0.7 Vp-p (75 Ω)
B output level   0.7 Vp-p (75 Ω)
Terminal   Scart jack (1 system)

DISC SECTION

Discs played (8 cm or 12 cm)
(1) DVD (DVD-Video, DivX[※6, ※7])
(2) DVD-RAM (DVD-VR, JPEG[※4, ※7], MP3[※2, ※7], MPEG4[※5, ※7], DivX[※6, ※7])
(3) DVD-R (DVD-Video, DVD-VR, JPEG[※4, ※7], MP3[※2, ※7], MPEG4[※5, ※7], DivX[※6, ※7])
(4) DVD-R DL (DVD-Video, DVD-VR)
(5) DVD-RW (DVD-Video, DVD-VR, JPEG[※4, ※7], MP3[※2, ※7], MPEG4[※5, ※7], DivX[※6, ※7])
(6) +R/+RW (Video)
(7) +R DL (Video)
(8) CD, CD-R/RW (CD-DA, Video CD, SVCD[※1], MP3[※2, ※7], WMA[※3, ※7], JPEG[※4, ※7], MPEG4[※5, ※7], DivX[※6, ※7])
[※1] Conforming to IEC62107
[※2] MPEG-1 Layer 3, MPEG-2 Layer 3
[※3] Windows Media Audio Ver.9.0 L3
    Not compatible with Multiple Bit Rate (MBR)
[※4] Exif Ver 2.1 JPEG Baseline files
    Picture resolution: between 160 x 120 and 6144 x 4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and narrow pictures may not be displayed.
[※5] MPEG4 data recorded with Panasonic SD multi cameras or DVD video recorders
    Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/G.726 audio system
[※6] Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. Certified to the DivX Home Theater Profile.
[※7] The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups.

Pick up
Wavelength (DVD/CD)   662/785 nm
Laser power (DVD/CD)   CLASS 1/CLASS 1M

NORSK
Bølgelengde (DVD/CD)   662/785 nm
Laserstyrke   Ingen farlig stråling sendes ut

Audio output (Disc)
Number of channels   5.1ch (FL, FR, C, SL, SR, SW)

ENGLISH

REFERENCE

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⚙ *Specifications (continued)*

USB SECTION

USB Port
USB Standard — USB 2.0 full speed
Supported media file format
  MP3 (∗.mp3)
  WMA (∗.wma)
  JPEG (∗.Jpg, ∗.JPEG)
  MPEG4 (∗.asf)
USB device file system
  FAT12
  FAT16
  FAT32
USB port power — 500 mA (Max)

SPEAKER SECTION

Front speakers SB-HF250	
Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W$^※$ (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	87 Hz to 25 kHz (−16 dB)
	98 Hz to 22 kHz (−10 dB)
Dimensions (W x H x D)	252 mm x 1123 mm x 234 mm
Mass	3.7 kg

Surround speakers SB-HS250	
Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W$^※$ (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	96 Hz to 25 kHz (−16 dB)
	120 Hz to 22 kHz (−10 dB)
Dimensions (W x H x D)	92 mm x 135 mm x 95.4 mm
Mass	0.75 kg

Center speakers SB-HC250	
Type	2 way, 2 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
1. Full range	6.5 cm Cone type
2. Full range	6.5 cm Cone type
Input power (IEC)	125 W$^※$ (Max)
Output sound pressure	81 dB/W (1.0 m)
Cross over frequency	5 kHz
Frequency range	105 Hz to 25 kHz (−16 dB)
	125 Hz to 22 kHz (−10 dB)
Dimensions (W x H x D)	270 mm x 92 mm x 95.4 mm
Mass	1.25 kg

Subwoofer SB-HW250	
Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Woofer	16 cm Cone type
Input power (IEC)	125 W (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	32 Hz to 220 Hz (−16 dB)
	38 Hz to 180 Hz (−10 dB)
Dimensions (W x H x D)	183 mm x 396 mm x 267 mm
Mass	4 kg

GENERAL

Power supply

For Continental Europe	AC 230 V, 50 Hz
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait	
	AC 110 to 127 V, 220 to 240 V, 50/60 Hz

Power consumption
Main unit

For Continental Europe	125 W
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait	
	135 W

Dimensions (W x H x D) — 430 mm x 60 mm x 363 mm
Mass — Main unit — 3.5 kg
Operating temperature range — +5 °C to +35 °C
Operating humidity range
  5 % to 90 % RH (no condensation)

Power consumption in standby mode	approx. 0.8 W

$^※$ Rating with low-cut filter equipped amplifier

Note

1. Specifications are subject to change without notice.
   Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

⚙ Maintenance

Clean this unit with a soft, dry cloth.
– Never use alcohol, paint thinner or benzine to clean this unit.
– Before using chemically treated cloth, carefully read the instructions that came with the cloth.
– Do not use commercially available lens cleaners as they may cause malfunction. (Cleaning the lens is generally not necessary although this depends on the operating environment.)

Before moving the unit, ensure the disc tray is empty.
Failure to do so will risk severely damaging the disc and the unit.

Matsushita Electric Industrial Co., Ltd.
Web Site: http://panasonic.net

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